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An Address.[1]

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RECOGNIZING the eminence of my many predecessors in office, it is with some diffidence that I submit this address to you.

I propose to discuss certain aspects of present day conditions of medical practice, with some consideration of their effect on our patients and on ourselves. Such views as are expressed here must of necessity be the results of one's own deductions from observation in a comparatively limited sphere. It is a truism to say that medical research and education have greatly widened our knowledge of disease and improved our methods of dealing with it. That being the case, our scope of usefulness should be also greater. In spite of this, is it not becoming a fact that as a result of the extension of certain State and other medical services, the scope of our work has been to a degree limited? The more intense specialization of many sections of medicine has its influence also. Do the two conditions, namely, (i) intensive medical education, (ii) diminished scope for the application of that education by the individual, harmonize satisfactorily?

Before attempting to answer this question, we may divide the practising profession into three main groups according to density of population: those in the metropolis, those in larger centres and those in country towns and districts.

In the metropolis the continuation of intensive training in one of the various branches of medicine gives us the specialist. Associated in this area are

[1] Delivered at the annual meeting of the Victorian Branch of the British Medical Association.

also many general practitioners, some of whom pay special attention to one particular branch of medicine. In the larger centres most of the practitioners belong to the general practitioner group, some of whom have leanings towards a special branch of medicine. In country towns and districts general practitioners are expected to have a considerable knowledge of all branches of medicine. (In all three groups cognizance has not been taken of whole-time public health and other such services.)

If we admit that such grouping broadly covers the field of the practising members of the profession, are we satisfied that such conditions are going to give the most efficient service to the public as well as satisfaction to the profession as a whole? Is the concentration of the most specialized knowledge in the largest centres of most service to the people as a whole?

While admitting the impossibility of maintaining such services in the less populous areas, it would seem that the time must come when some practitioners living in large and even moderately sized towns, will need definitely to make a special study of one particular branch of medicine, limiting their work to some extent in other branches.

It has been suggested that this could be worked out by a partnership of, say, four or more, each one specializing in one branch of medicine. It would seem to me that such a partnership would not be satisfactory. There remains then the possibility of establishing a group of men, each having made a special study of a branch of medicine. The only hindrance to the effective working of such a group, if they are keen on their job, is that of varying temperaments. I do not mean that this group should work alone, for if they established their ability and played the game ethically, others who preferred to remain general practitioners, would refer patients to them. The large centres would thus be provided with a full, efficient medical service as well as the metropolis.

The smaller districts could possibly in these days of rapid road transportation (at any rate in some areas) form some contact through the practitioners of the area.

Under present conditions many of us work as individuals. By so doing we are the losers and we fail in helping our fellow practitioner. This must be especially so in the towns of moderate size. If we work together, there will be fewer suggestions of lapses from the rules of ethical conduct. The ethical outlook of the practitioner has a bearing on the harmonizing of the value of our present day medical education with the lessened scope of its application.

If we maintain our knowledge by continuing as students of medicine and maintain ethical standards in the conduct of our practice, we will be in a better position to maintain the scope of our work. It will help towards that unanimity of the profession as a whole which is so desirable.

The attitude of the public (perhaps in part only) to the profession has altered. While they are willing to admit the value of the work done on their behalf, they in many instances do not hesitate to take advantages of those services through hospitals, so that they may not be called upon to pay for value received.

Another aspect of present day conditions of practice is that the "family doctor" is less in evidence. The attitude of the public has altered. They ask for the most modern methods of investigation and treatment, and rightly so. They are, however, not always the best judges as to what line of investigation is needed. They may then (if not satisfied, or at the suggestion of a friend) seek other advice while remaining supposedly under the care of their usual medical attendant, and without any reference to him.

We are ourselves at times to blame if this happens, in that we are not sufficiently honest with ourselves to admit and suggest the advisability of a second opinion. With regard to the question of seeing a patient of another practitioner without his knowledge, I feel that position is not always so carefully considered as it might be, and that in this respect the conditions of medical practice have been altered.

I would conclude by saying that however much we feel that conditions of practice have altered to our disadvantage, we are still bound to maintain the highest teachings of our profession.

OBSERVATIONS ON THE ENDOMETRIUM AND UTERINE HÆMORRHAGE.[1]

By M. GRAHAM SUTTON, F.R.C.S. (Edinburgh),
Honorary Surgeon, Lady Lamington Hospital for Women, Brisbane.

A LITTLE over three years ago I was stimulated to endeavour to correlate the clinical history of patients suffering from irregular uterine hæmorrhage with the pathological findings, both macroscopic and microscopic, because I felt that the accepted methods of treating these conditions were empirical and limited practically to curettage, hysterectomy and the somewhat haphazard exhibition of drugs. I therefore decided to invoke the aid of my friend and colleague, Dr. Duhig, and his microscope with the results that we shall discuss with you tonight.

It soon became apparent, however, to us both that we had to revise our knowledge, not only of the histology and pathology of the uterus and its endometrium, but also of the uterine and ovarian functions, that is, we must formulate a working physiology of menstruation.

Accordingly, we intend to give to you the fruits of our labours (although I am afraid they are rather green) in a necessarily sketchy manner, in a paper divided into two parts.

I shall deal first with menstruation or physiological "bleeding" and secondly with irregular

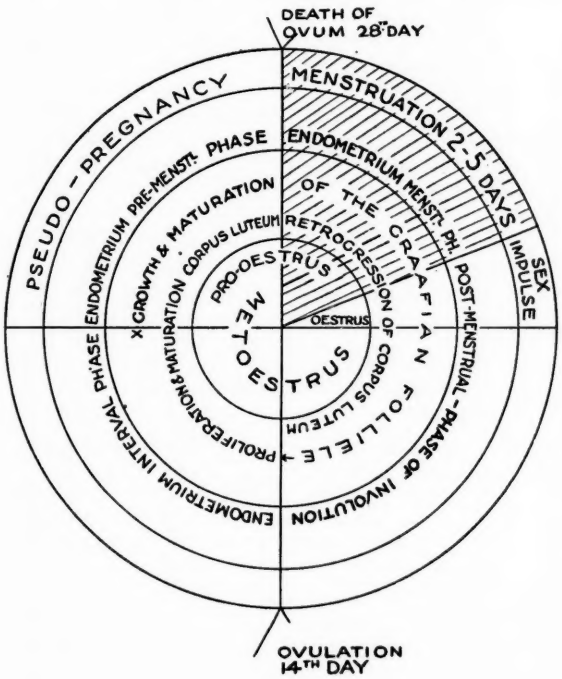
[1] Read at a meeting of the Queensland Branch of the British Medical Association on August 1, 1930.

uterine hæmorrhage or pathological bleeding, while Dr. Duhig will demonstrate his views with the aid of lantern slides made from microphotographs of the actual tissues.

COMPARATIVE PHYSIOLOGY.

In mammalian females are seen the influences of two fundamental types of sexual season,[1] the anœstrus and the diœstrous. These may be analysed into four phases according to the phenomena which occur, namely, proœstrus, œstrus or heat, metœstrus or decline, and anœstrus or rest, which follow one another in rhythmical order. Considerable variation occurs in different species with regard to the presence and duration of each of these periods or phases of the œstrous cycle of the sexual season, variations caused by bleeding, artificial selection, captivity *et cetera*.

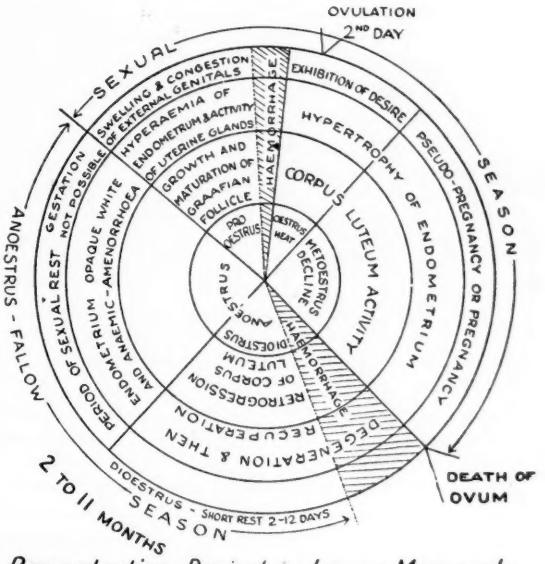
Emerging out of the two fundamental types referred to is the polyœstrous type as seen in such animals as the mare, cow, sheep, sow and, in its most highly developed form, in monkeys and the human female. In the latter the œstrous cycle has become so polyœstrous, so to speak, that it has



The Primate (Human) Cycle

gone a step further than in the lower mammals and the phases of the cycles have overlapped, so that, first, the period of rest or anœstrus is abolished and the period of decline or metœstrus extends into the period of proœstrus as far as the twenty-eighth day, when it wanes into menstruation.

Secondly, proœstrus, continuing on, leads up to a short œstrual period which is actually post-menstrual and constitutes Nature's effort to fertilize the next ovum to be liberated from a Graafian follicle.



Reproductive Period in Lower Mammals Illustrating Anoestrous & Dioestrous Types Of Sexual Season

Dioestrous recurring = Polyoestrous Type

As Whitehouse[2] puts it, "while the remains of the previous *débâcle* are being cleared away the stage is being set for the next scene which Nature trusts will be more successful."

PHYSIOLOGY OF THE HUMAN FEMALE.

We must now consider the ovary as a gland of internal secretion as aside from one for the production of eggs.

Inasmuch as the ovary is known to exert an influence before puberty as proved by changes in development after castration done before this epoch it seems likely that the follicular apparatus must be the seat of the production of an internal secretion, for the *corpus luteum* does not appear normally until after sexual maturity. Lemon's[3] views that the interstitial cells of the ovary either are identical with the luteum cells of the atretic follicles or at least are derived from them is now generally accepted.[4] So it appears that a production of an internal secretion is a function of follicular atresia, that is to say, atresia is a physiological and not a pathological or atrophic process, and has as its object the production of a hormone. The ovary, however, has more than one internal secretion. There are in fact two others whose seat of production and mode of action we must consider.

One of these hormones is undoubtedly formed by the *corpus luteum*. As may be remembered, the *corpus luteum* forms within the follicle cavity after the discharge of the ovum and is derived from the epithelial (granulosa) cells lining the follicle. In its full development it presents all the characteristics of an internal secretory gland with its large pale cells lying in close proximity to thin-walled vessels very similar to the condition existing in the adrenals. Like the endometrium of the uterus, it goes through a definite cycle of changes from its inception to its dissolution; the cycle may be divided into four stages: (i) A stage of proliferation, (ii) a stage of vascularization, (iii) a stage of maturity, (iv) a stage of retrogression, ending in fibrosis and the production of a *corpus albicans*. It is well recognized that the functional activity of the *corpus luteum* corresponds with the presence of luteal cells.[5] If pregnancy does not supervene, the *corpus luteum* persists only until the next Graafian follicle is almost ready to rupture, then retrogresses.

Without going into great detail as to the proof of its internal secretory function, as first suggested by Gustan Born, we may state that Frankel[6] concluded as a result of his experiments that the *corpus luteum* produces an internal secretion which causes those histological changes in the endometrium in preparation for the reception of the ovum. Loeb[7] also demonstrated by animal experiments that the *corpus luteum* elaborates a substance now known as "ovarin" or "kythin," which stimulates the endometrium to a decidual reaction. In the non-pregnant animal this is slight and recedes in a short time as the *corpus luteum* retrogresses. In the pregnant animal the reaction is much more pronounced and continues throughout pregnancy, resulting in the formation of the decidua or maternal placenta.

There is little doubt, therefore, that the *corpus luteum* causes a definite cycle of changes in the endometrium of animals, histologically similar to the changes described by Hitschman and Adler as occurring in the human endometrium, providing the maternal part of the placenta and permitting the formation of a true placenta should be a fertilized ovum be implanted and provide the further necessary stimulus.

The other important ovarian hormone is the follicular hormone, œstrin. Of late this has been recognized, isolated and standardized and even crystallized. According to recent research by Allen and Doisey, Laquer, Dickens, Dodds and Wright, Parkes and Bellerby, and others,[8] it is found in the *liquor folliculi* mainly, but also in ovarian tissue without follicles, in human placenta and in the secretions and tissues of the uterus and the urine of pregnant women. It has not been found, however, in the *corpus luteum*. The production of pro-œstrual and œstrual factors of the sexual cycle is due to the accumulation in the tissues of this hormone.

Whitehouse[9] states that evidence is not wanting to show that œstrin is unable to act by itself, but requires a sensitizing agent which enters into combination with it. This agent he believes to be calcium. As evidence he states that when there is calcium inefficiency, amenorrhœa is usually present and is curable by the administration of calcium salts. On the other hand, he states that excess of calcium causes uterine bleeding. He instances also the fact that during pregnancy and lactation, when special demand is being made on the calcium metabolism, menstruation is in abeyance. Calcium metabolism is controlled by the parathyreoids. On the other hand, as a result of their observations on the pituitary gland, Zondek and Ascheim[10] conclude that the anterior lobe hormone is the motor of sexual function; the anterior lobe hormone is the primary, the ovarian the secondary; the anterior lobe hormone brings the follicular apparatus into action, fires off follicular ripening and mobilizes the secondary ovarian hormone in the follicular cells. This hormone then acts in a specific way on the uterus and vagina, that is to say, the ovary does not function independently or according to its own rhythm.

According to Wiesner,[11] the factors regulating and conditioning the ovarian function located in the anterior lobe of the pituitary are not merely one sex hormone, but two distinct factors, an œstrogenic hormone which induces follicular maturation and secretion of œstrin, and a kythogenic hormone which induces the formation of kythin, the *corpus luteum* hormone, and this produces the pregnancy conditions. So much for the two ovarian hormones.

There is just one other observation, namely, that there is not inconsiderable evidence that the endometrium itself is a ductless gland bearing its own hormone. Whether this hormone stimulates the ovary to the production of its follicular hormone or to a toxin with inhibition of ovulation or *vice versa* is not settled.

Norris and Vogt[12] believe the endometrium possesses a definite endocrine function which acts in conjunction with the ovary to which it is subservient. They state *inter alia*: "No one who has examined a large series of uterine myomata would fail to be impressed by the relatively large proportion of specimens that exhibit greatly thickened or even polypoid endometria—histologically of the premenstrual or early menstrual type." They believe that the myoma stimulates the endometrium to assume its premenstrual character, the endometrium thus altered stimulates in turn the ovary, and ovarian internal secretion is produced. This accounts for the frequency with which hypertrophied ovaries occur in conjunction with these neoplasms.

Whitehouse[13] found that the uterine secretion of normal rabbits injected intravenously into other animals hastened œstrus, but that if the rabbits' ovaries had been previously removed, no such effect was produced.

Wilfred Shaw,[14] in speaking of *metropathia hæmorrhagica*, says: "The myohyperplasia that is met with is secondary to the thickening of the endometrium and . . . in my view the ovarian changes are also secondary to the alterations in the endometrium." This hypothesis assumes that the endometrium itself independently of the ovary has some internal secretory function.

It appears, then, that the secretion of the corporeal (endometrial) glands contains excess of calcium, a hormone which stimulates œstrus and, as I shall refer to later, a ferment or thrombolysin which dissolves blood clot. So we may conclude with Whitehouse "that the endometrial hormone, stimulated and controlled by the sensitized ovarian hormone is absorbed and produces the congestion and dilatation of vessels which occurs in the premenstrual stage of the menstrual cycle and in early pregnancy."

The parathyreoids control calcium metabolism, while calcium excess is got rid of each month by the menstrual process and, of course, by the kidneys and bowels, except when it is needed for pregnancy and lactation. Calcium may sensitize the follicular hormone œstrin. The anterior lobe of the pituitary gland or the thyreoid or both stimulate the growth of the primordial follicles and regulate ovulation, initiating the first ovulation. Menstruation is probably established at the first complete ripening of a Graafian follicle. When this ruptures, the ovum is liberated and its *liquor folliculi* is discharged into the peritoneal cavity and absorbed into the blood stream to produce, by the influence of the hormone œstrin which accumulates in the tissues, hyperæmia of the pelvic organs, secretory activity of the endometrial glands and congestion and dilatation of the vessels of the endometrium in the premenstrual stage, that is, in proœstrus, œstrus and early pregnancy.

Once ovulation is established a new endocrine gland comes into play, namely, the *corpus luteum* with its hormone ("ovarin" or "kythin") whose function it is to cater for the nidation of the expected ovum by decidua formation in the superficial layers of the stroma of the endometrium. This hormone continues its action for a definite time, when, according to the fate of the liberated ovum, one of two things happens. If the ovum is fertilized and is implanted by its trophoblastic properties, the *corpus luteum* continues as the *corpus luteum vera*. If, on the other hand, the ovum is not fertilized, the *corpus luteum* retrogresses and its effect on the maintenance of the endometrial stroma in its premenstrual state or state of prepregnant decidual reaction, ceases, whereupon menstruation takes place by a slow ooze of blood. The liberated blood then comes into contact with the secretion from the endometrial glands, which has been poured out during proœstrus. This is responsible for the disintegration by autolysis of the necrosed menstrual decidua and small blood clots (Whitehouse). In addition, since the uterine secretion has been found to be rich in calcium, it appears reasonable to believe that it supplies this substance to the ovum, or, if pregnancy fails, provides a means for its removal. When the excess of calcium has been thus removed, one of the factors, namely, the sensitizing agent to the (ovarian) follicular hormone, which promoted the congestion of the endometrium, is removed and menstruation ceases. The cessation of menstrual "hæmorrhage" may also be due to the cessation of the supply of the hormone and a reduction of its concentration in the tissues.

As soon as the uterine glands stop secreting, thrombolysin is no longer available and the thrombokynetic action of the stroma cells (demonstrable at any curettage) comes into play unhindered.

Finally, the uterine involuntary musculature which has been rendered much more sensitive to stimuli as a result of the accumulation of calcium in the blood (as it does at the end of pregnancy) contracts during menstrual labour and exerts some influence on the blood supply to the endometrium.

In some animals the uterine secretion is reabsorbed, says Whitehouse, and is a factor in the production of proœstrus and œstrus. In the human species, although absorption from the vagina is possible, it is unlikely that it plays a great part in arousing the sexual instinct, but it may be a stimulus to the sex impulse or œstrus which occurs notably after menstruation, and to the hyperæmia of menstruation and early pregnancy.

Menstruation in the human female, therefore, represents two things. Concerning this Whitehouse may be quoted:

(1) The absorption of a useless decidua of the pseudo-pregnancy corresponding to the previous ovulation.

(2) The acme of proœstrus, to promote fertilization at the succeeding ovulation.

The abortion is the result of cutting off the supply of ovarin through the death of the ovum and its *corpus luteum*. Proœstrus is caused by the accumulation in the tissues and uterine glands of œstrin. Although œstrin will produce hyperæmia and glandular development and activity of the uterus and mammæ, there is no evidence to show that it produces growth of the endometrial stroma, which when complete constitutes the decidua. Decidual development requires the stimulus of another hormone of the ovary linked with the anterior pituitary hormones. This hormone is present in the mature follicle and *corpus luteum*.

Clinico-Pathological Entities.

In the foregoing I have attempted to epitomize the views of the authorities doing work on menstruation and irregular uterine hæmorrhage. I shall now attempt to clarify the subject by setting out the various pathological clinical entities which have been considered from time to time to underly these hæmorrhages.

The Uterus.

I was brought up on Eden and Lockyer's[15] gynæcological teaching and in their text books great prominence was given to the work of Fletcher Shaw on metritis and of Goodall on subinvolution. Prior to their work the term chronic metritis was applied to intractable uterine bleeding in women usually

over forty years of age. Hysterectomy was performed for the relief of the condition. The uterus was found to be smooth and slightly enlarged and on section the walls appeared thickened and the vessels stood out. The condition was thus regarded as inflammatory in origin and the term *fibrosis uteri* was applied to it. It was thought that the fibrous tissue prevented the efficient control of the uterine vessels during menstruation. As a result of Fletcher Shaw's work it became evident that true inflammation of the myometrium occurred in a very small minority of these cases and that the enlargement of the uterus was due to hypertrophy.

Then Goodall published his work on the involution changes of the vessels of the puerperal uterus and described the deposition of elastic tissues of an old vessel round a new one that had formed during the process of involution. Later he concluded that the main histological feature of chronic metritis was the presence of a large amount of elastic tissue around the blood vessels of the uterine wall. Fletcher Shaw confirmed this view and grouped these cases under the heading of "delayed involution." In this way chronic metritis and chronic subinvolution came to be grouped together and have remained so to the present.

Later still Whitehouse suggested that syphilis played some part in the ætiology of these two conditions, but evidence is lacking to support his contention.

At this point Wilfred Shaw's excellent work comes in. After testing the observations of Goodall on involution, of Fletcher Shaw on chronic metritis and of Shroeder on the ovary and the endometrial changes associated with its activity, and adding his own work on the ovaries, he came to certain conclusions which I shall touch upon later. He undertook his research for two main reasons *inter alia*.

(1) He had always had difficulty in accepting the subinvolution theory of chronic metritis. This difficulty is shared, of course, by others, and when we reflect that according to our own statistics in the Obstetrical Section of the Queensland Branch of the British Medical Association the puerperal morbidity rate for sepsis is somewhere about 49‰ and in New Zealand 39‰ and when we consider how very common this condition of so-called chronic metritis, chronic subinvolution or *fibrosis uteri* is in our private practices and in our hospital departments, we can but agree with Wilfred Shaw that it is hard to believe that the one is dependent on the other.

(2) He did not consider the subinvolution theory accounted for the excessive hæmorrhages. This I shall discuss later under the heading "Uterine Insufficiency."

Of course, Shaw's work awaits confirmation, but if correct, it certainly demands an earnest reconsideration of our conception of the pathology underlying irregular hæmorrhages. However, accepting his conclusions as substantially correct, brief reference must be made to the following uterine conditions in order that we may have a clear idea of the relation they have to hæmorrhage: (i) So-called subinvolution, the parous uterus; (ii) chronic metritis; (iii) climacteric fibrosis; (iv) hypertrophy of the uterus (myometrium).

Subinvolution.

In true subinvolution, of course, the process of involution is incomplete, the uterus remains large and bulky, because the muscle fibres have not been absorbed. According to Wilfred Shaw, this alone is the essential criterion of subinvolution and not any condition in and about the vessels in the way of a deposit of fibrous or elastic tissue. He holds that the latter condition denotes parity, not subinvolution, and is physiological, not pathological. It follows, then, that true subinvolution must be looked for, not in the out-patients' department of a women's hospital, but in the out-patients' department of a lying-in hospital's postnatal clinic where women may be observed during their puerperia or immediately following abortion or premature labour. This condition is in reality what is now called "delayed involution" and when not due to sepsis is a temporary or transitory condition, well recognized and understood as such, at the time and under the circumstances above cited. Indeed, it usually responds to appropriate treatment and is what has been termed up to the present, apparently erroneously, chronic subinvolution, but should now be styled the "parous uterus." At least this is the interpretation I put on it.

There is just one other point, and that is the loss of function of the uterus as a contractile organ. Now while in the light of modern and more accurate knowledge it is obvious that in cases of irregular uterine hæmorrhages in parous women, indeed also in nulliparous women, the ovaries must be involved if there is variation of the rhythm of menstruation, I see no reason why the cushioning of the vessels by elastic tissue should not at least hinder the control of bleeding of the menorrhagic types.

Chronic Metritis.

True chronic metritis is always the result of acute inflammation which has occurred usually during the puerperium or a septic abortion, but occasionally following an acute infection, such as gonorrhœa. The end result of severe inflammation is a deposit of fibrous tissue in the process of repair. The condition is a true fibrosis and in this sense alone may the term *"fibrosis uteri"* be used. In this type of uterus there is a condition of chronic interstitial endometritis.[15] Chronic metritis is rare and of little clinical importance.

With regard to the hæmorrhage from such a uterus, the same remarks apply as in the case of the parous uterus.

Climacteric Fibrosis.

Climacteric fibrosis is in point of fact the commonest form of fibrosis met with, since the late

inflammatory type is so rare. But it is only a relative fibrosis due to atrophy and disappearance of the muscle fibres. It has no special significance other than that which may be attributed to loss of contractile power of the uterus. It ends in post-climacteric atrophy.

Hypertrophy of Uterus.

Hypertrophy of the uterus is now a well recognized condition in which the uterine wall is thickened, but there is no alteration in the relative amount of muscle, elastic or fibrous tissue. It is in fact a true uniform hypertrophy. It is commonly found in *nulliparæ*, more often old than young, associated with hæmorrhage and dysmenorrhœa. The hypertrophy is to be regarded in the light of work—it is brought about by contraction of the uterus on to a greatly thickened endometrium. This thickened endometrium is nearly always present and this leads me to a consideration of the endometrium as a clinico-pathological factor.

Diseases of the Endometrium.

Mathews Duncan in 1879 described two forms of endometritis in his text book, "Diseases of Women," namely: (i) A purulent endometritis following gonorrhœa, septic abortion and puerperal sepsis; (ii) a hæmorrhagic endometritis or *endometritis polyposa vel tuberosa vel fungosa.* In the same year Runge, after examining the material obtained by many uterine curettings, classified the conditions he found into three groups of endometritis, namely: (i) An interstitial form in which the stroma was infiltrated with round cells and leucocytes; (ii) a glandular form which was further subdivided into hypertrophic and hyperplastic types; (iii) a mixed form comprising (i) and (ii). Then came Hitschman and Adler's work which showed that the two types of glandular endometritis referred to by Runge were simply stages in the menstrual cycle of the endometrium and not inflammation at all. They actually described the four stages of the menstrual cycle which Dr. Duhig will demonstrate, and they asserted there was only one form of true endometritis and that was the interstitial. At the present, therefore, I would present the following conditions of the endometrium for consideration: (i) Acute interstitial endometritis, (ii) chronic interstitial endometritis, (iii) *hyperplasia glandularis cystica,* (iv) œdema and hyperæmia without glandular change or with atrophy of the glands, (v) pregnancy hypertrophy and *hyperplasia glandularis pseudocyetica,* (vi) adenomatous hyperplasia.

Acute Interstitial Endometritis.

Acute interstitial endometritis is solely due to infection and is not of clinical importance, as it is overshadowed by the condition which gave rise to it, for example, sapræmia, septic abortion, gonorrhœa and the passage of septic instruments past the internal os *et cetera.*

Chronic Interstitial Endometritis.

Chronic interstitial endometritis, like true metritis, is a relatively rare disease, for acute endometritis tends to spontaneous healing owing to the constant changes in the superficial layer of the endometrium in the process of menstruation. For the same reason chronic endometritis resolves itself into an interstitial form in which the presence of the plasma cell in the stoma is the deciding factor in microscopical diagnosis. The orthodox histological features of inflammation occurring elsewhere in the body are also present.

Hyperplasia of the Glands.

Hyperplasia of the glands, formerly called polypoid or fungous endometritis, which was described by Cullen and redescribed and brought up to date, so to speak, by Shroeder, is not an inflammation, but is nevertheless a very common pathological entity.

Of fifty-four cases of irregular uterine hæmorrhage in which the clinical notes were adequate, hyperplasia was responsible in sixteen, roughly one-third.

Histologically Dr. Duhig has differentiated an early or slightly cystic stage and a late or fully cystic stage, but I shall leave the histology for him to demonstrate.

Clinically it is stated that the condition occurs most frequently at or near the menopause and next in order of frequency in young girls (my youngest patient was aged nineteen years), but in my experience it may occur at any time during the reproductive life. The only clinical sign may be a smooth uterus, symmetrically enlarged either through parity or hypertrophy *plus* hæmorrhage. It underlies a really important clinical condition called *metropathia hæmorrhagica.*

Because these changes in the endometrium are associated with atrophic ovaries which contain few ripening follicles and typically no *corpus luteum,* but invariably a cyst either of a follicle or of a recently ruptured follicle and because the patients complain of excessive and prolonged hæmorrhage, frequently preceded by a term of amenorrhœa, the condition is ascribed to functional disturbances in the ovaries causing inhibition either of ovulation or of the full development of the *corpus luteum.*

Mrs. B., a widow, aged fifty-three years, whose catamenia had been regular but scanty all her life, was affected with amenorrhœa from February, 1930, till the middle of May, 1930, since when there had been an almost continuous and bloody discharge with occasional gushes of bright red blood with clots. The uterus was smooth and very definitely enlarged. Curettage revealed a very thick mucosa in which histological examination revealed very pronounced cystic hyperplasia. Radium was inserted.

Œdema and Hyperæmia.

Œdema and hyperæmia which have been so admirably described and differentiated by Wilfred Shaw under the caption "The Epimenorrhœal Group of Metropathias," is possibly a variation of *hyperplasia glandularis cystica,* but is sufficiently distinct in its features to be regarded as a separate pathological entity, more especially as in our experience it is often associated with atrophy of the glands. Of sixteen cases, in three there was hyperplasia and in

TABLE I.
Pathological Findings.

Pathological Report.	Retroversion.	Fibromyoma.	Subinvolution *et cetera*.	Endometritis.	Oophoritis, Cystic Ovaries.	Other Diagnoses.	Total.	Age.	Parity.
Normal	3	1	2	3	—	2	12	—	—
Hyperplasia	7	1	1	2	2	—	13	All ages.	Four *nulliparæ*, nine parous, three (?) parity.
Hyperplasia with œdema and hyperæmia	2	—	—	—	—	1	3		
Œdema and hyperæmia without gland change	3	—	—	—	—	—	3	Seven under age of 25 years, five 40 years of age or over.	Three *nulliparæ*, ten parous.
Atrophy, œdema and hyperæmia	3	2	2	1	—	2	10		
Pregnancy hypertrophy	—	—	—	—	—	3	4	35 years, 43 years,	One *nullipara*.
Pseudocyetic hyperplasia	—	1	—	—	—	—		28 years, 52 years.	
Adenomatous hyperplasia	—	—	—	—	—	2	2	50 years, 31 years.	Both parous.
Other findings	—	—	1	2	1	3	7	—	—
Totals	18	5	6	8	3	14	54	—	—

ten atrophy, while in three there was no glandular change. Shaw states that clinically the condition is met with in parous women, particularly in young women after a confinement from which they date their symptoms, but also in women between forty and fifty years of age. Of thirteen cases in which there was no hyperplasia, ten occurred in parous and three in nulliparous women; seven of the patients were under the age of twenty-five years and five were forty years of age or more.

The condition may occur in association with pelvic inflammatory and other diseases, but Shaw has demonstrated that it may occur quite apart from any pelvic infection; this is also our experience. The uterus is symmetrically enlarged and the main symptom is epimenorrhagia, that is, too frequent and too profuse menstruation, though in my small number of cases other types of irregular bleeding occurred.

If it be granted that the hæmorrhage is due to the excessive hyperæmia, the question arises, to what is the hyperæmia due and what is the cause of the alteration in the menstrual cycle? Apparently it is due to the more rapid development of follicles and the over-production of œstrin, together with the presence of excess of lutein tissue. The hæmorrhage then becomes comparable to that occurring in some animals, for example, the bitch, at the end of the proœstrual period of the œstrual cycle. The delayed retrogression of the *corpus luteum*, while it may account for the changes in the stroma, is, however, a little disconcerting, since one would expect it to be accompanied by hypertrophy, not atrophy, of the glands. All this goes to show that, while as far as the generative organs are concerned the condition is primarily ovarian in origin, yet it is probable that the accessory sex glands, namely, the thyreoid, pituitary *et cetera*, play a greater part than has hitherto been imagined and that therapy directed to the control of their activities would be more appropriate and successful. The experimental work of Wiesner on the hormones of the anterior lobe of the pituitary supports this in a general way; X ray treatment applied to the thyreoid, pituitary and spleen has had some success.

Pregnancy Hypertrophy and Hyperplasia Glandularis Pseudocyetica.

Microscopically, Dr. Duhig has recognized a type of hyperplasia resembling pregnancy hypertrophy for which I suggested the term *hyperplasia glandularis pseudocyetica*; this met with his approval, The two conditions occurred in four instances. One patient suffered from ectopic gestation, two had retained products of conception and one was a *nullipara*, aged fifty-two years, who suffered from menorrhagia and metrorrhagia and a uterine fibroid. Another example occurred in a *nullipara*, aged twenty-four years, who appeared to be sterile. Her menstruation was regular, though her bleeding was

scanty. The latter two cases along with one of a patient in whom the possibility of pregnancy is denied, give credence to Dr. Duhig's idea that it is a pathological condition occurring apart from pregnancy, that is, it is a true hyperplasia, pseudocyetic hyperplasia.

Adenomatous Hyperplasia.

Whether adenomatous hyperplasia should be regarded as a hyperplasia or a new growth is, of course, open to speculation, but Dr. Duhig has something to say on this point.

There were two patients, one aged thirty-one years, parous, with no menstrual abnormality; her condition was diagnosed as prolapse. The other was a parous woman, aged fifty years, who suffered from menostaxis; no diagnosis had been made.

DIAGNOSIS OF CAUSES OF UTERINE HÆMORRHAGE.

Commonly abnormal uterine bleeding has been referred to in the past as (i) functional or organic, (ii) local or constitutional, (iii) menorrhagia (excessive and prolonged hæmorrhage with the period), and (iv) metrorrhagia (bleeding between the periods). Useful as these methods of classification have been, particularly from a clinical point of view, they are, to say the least, somewhat crude from the point of view of physiology and pathology. A better state of our knowledge now allows a new classification to denote the various clinical types of pathological uterine hæmorrhage besides being of use in making a clinical diagnosis.

The menstrual excesses are our only concern tonight. It will be noticed in this classification I have featured two great classes or categories of uterine hæmorrhage, namely, essential and symptomatic, according to whether, first, the cause of the bleeding is considered to be demonstrable in the pelvic organs and structures or, secondly, in more remotely situated organs, such as the extrapelvic ductless glands or whether the hæmorrhage is merely a subsidiary symptom in a constitutional or systemic disease. This distinction is, of course, not of vital importance, for on the face of it, all abnormal uterine hæmorrhages are, in their final analysis, symptomatic. However, it serves to remind us that the cause is not always to be found in the pelvis. Bearing this in mind, let me explain what is meant by the various terms used to signify the types of bleeding referred to as set out in the following statement.

NOMENCLATURE OF MENSTRUAL IRREGULARITIES AND IRREGULAR UTERINE BLEEDINGS.

I. *Menstrual Deficiencies.*
   - *A.* Essential or Local.—Due to local changes in the generative organs.
   - *B.* Constitutional or Symptomatic.—Associated with such diseases as chlorosis, tuberculosis *et cetera*.
     1. Amenorrhœa.—Complete cessation for months or years.
     2. Oligomenorrhœa.—Scanty amount, normal interval.
     3. Opsomenorrhœa.—Normal amount, prolonged interval.
     4. Oligoopsomenorrhœa.—Scanty amount, prolonged interval.

II. *Menstrual Excesses.*
   - *A.* Essential.
   - *B.* Symptomatic.
     1. Epimenorrhœa.—Too frequent menstruation.
     2. Menostaxis.—Too prolonged menstruation.
     3. Menorrhagia.—Too profuse menstruation, with signs of hæmorrhage.
     4. Epimenorrhagia.—Too frequent and too profuse menstruation.
     5. Hypomenorrhagia.—Not frequent enough and too profuse hypomenorrhœa (Wilfred Shaw).
     6. Metrorrhagia.—Irregular independent hæmorrhage.
     7. Metrostaxis (Beckwith Whitehouse).

Epimenorrhœa.

Epimenorrhœa was the term coined by Blair Bell to signify too frequent menstruation without any excess or signs of the hæmorrhage. It was conceived to denote a hyperactive state of the sex complex associated with too frequent ovulation and the consequent production of immature and therefore perhaps delicate ova, so that sterility often accompanies it. Since the normal rhythm of menstruation is an index of the ovarian follicular activity and this in turn is dependent on thyreoid or pituitary control or both, it follows that epimenorrhœa is often found in conjunction with abnormal body metabolism, so that sterility and epimenorrhœa associated with a lowered basal metabolic rate are a clinical syndrome.

Whitehouse says: "There are two periods of life when epimenorrhœa is common, so common in fact as almost to be physiological. One is at puberty and the other at the menopause. At both these epochs a state of ovarian instability exists. Physiologically at puberty the sexual organs are establishing their full functional activity through the production of œstrin, while at the menopause exhaustion of the supply of one or both ovarian hormones is coming about. In the one case it is due to immaturity, in the other to sexual old age."

Epimenorrhœa may occur, however, with chronic tubo-ovarian disease, as illustrated by the following history:

Mrs. F., aged thirty-one years, was a *nullipara*. She had had a miscarriage at four and a half months in 1926. In 1928 her appendix and her right Fallopian tube had been removed. She now has pain and leucorrhœa and a tubo-ovarian swelling on the left side and pus and gonococci in the cervical discharge. Her catamenia have been fairly regular since her operation, but have often been early and in the last two months have occurred twice a month, but lasted only three days. There have been no signs of hæmorrhage.

Of 201 cases reviewed 14 were of this type.

Epimenorrhagia.

Epimenorrhagia is a term I have applied to one of the commonest types of uterine hæmorrhage, namely, that group which Wilfred Shaw calls the "epimenorrhœal type of *metropathia hæmorrhagica*." This term means too frequent and too profuse menstruation, that is to say, there is a reduction in the cycle from 28 to 23, 21 or even 14 days, in association with profuse and prolonged bleeding. Theoretically one can conceive of the condition referred to by Blair Bell and Whitehouse as epimenorrhœa as

being due, purely and simply, to alteration of rhythm—disordered action, so to speak—not disease, of the ovaries.

The term epimenorrhagia is intended to convey something more, namely, not only alteration in rhythm, but, in addition, hæmorrhage. Whether such a distinction between epimenorrhœa and epimenorrhagia is justifiable or advisable in clinical medicine depends, no doubt, on the results of further research into the cause of these hæmorrhages. For the present, however, I think both terms are tenable and I prefer to regard one as the forerunner of the other. In this connexion it is significant that both Whitehouse and Wilfred Shaw describe almost identical conditions in the ovaries in these cases and some change in the endometrium. Whitehouse says the endometrium, essentially normal at first, becomes hyperplastic and Shaw describes it as hyperæmic and œdematous. Both types may occur in chronic tubo-ovarian disease, though they do occur quite apart from it. Both types are common in women between thirty-six and fifty years of age. In 25 of the 201 cases this irregularity was seen.

Menostaxis.

Menostaxis is a term used by Whitehouse to denote simply a prolonged period of menstruation. He believes it is analogous to an incomplete fertile abortion, being itself an incomplete afertile abortion of the menstrual decidua. He suspects that it is associated with a slow or atypical retrogression of the *corpus luteum*, or that it is due to an excess of œstrin hormone which causes extreme hyperæmia and over-secretion of the endometrial glands associated with hypertrophy of the stroma. "This superabundant secretion," he says, "produces excessive thrombolysis in the endometrial tissue and leads to the production of a local state of hæmophilia and also to an excess of the clear mucous secretion commonly called 'leucorrhœa'."

At all events menostaxis is evidently due to a local ovario-endometrial lesion, possibly an early stage of one of the clinico-pathological entities referred to by Shaw as œdema and hyperæmia, or to the condition we have described as pseudocyetic hyperplasia, and is distinguishable clinically as a prolonged menstrual period with a large amount of menstrual lochia containing few or no clots. The symptoms do not occur with each menstruation, though there may be a history of several such periods.

When curettage cures this condition, as it sometimes does, it may do so by righting the balance of action between the endometrium and the ovary, otherwise it is difficult to explain its good effect. There were six cases of menostaxis in our series.

Menorrhagia.

Menorrhagia is used by Whitehouse in a limited sense, that is, a severe menstrual hæmorrhage practically amounting to the popular word "flooding," but not overstepping the usual bounds of normal menstruation with regard to the limits of duration or periodicity. In practice, however, I find it very difficult not to include in this class cases in which there is prolongation of the period and, of course, signs of hæmorrhage.

Whitehouse regards menorrhagia as a symptom of uterine insufficiency, either in the uterine wall or in the endometrium or both. The endometrial insufficiency is secondary to that of the uterine wall or, as seems more likely to some more remote hormonal or toxic influence brought to the endometrium by the blood stream, possibly from cystic follicles (W. Shaw) or from a septic focus, such as a diseased cervix (James Young).

Insufficiency in the Myometrium. Any condition, general or local, which interferes with uterine tone and uterine contraction and leads to alteration (presumably congestion or stagnation) in the uterine circulation, might be expected to predispose to the menorrhagic type of uterine hæmorrhage. Such a set of circumstances is a possible factor during adolescence, but is a more likely one during the child-bearing period and may be occasioned by the following conditions: Multiple fibroids, so-called chronic subinvolution, *fibrosis uteri*, chronic metritis, retroversion and acquired retroflexion, tubo-ovarian disease with adhesions, and possibly such conditions as general debility, asthenia and anæmia which favour lack of tone in the uterine wall. Many observers believe that contraction of the uterine musculature plays a doubtful part in the control of menstrual bleeding and they consider that uterine insufficiency does not explain excessive bleeding in the conditions mentioned above. This is rather an important aspect of uterine hæmorrhage since heretofore most of our efforts at its control have been directed to promote contraction of the uterus itself or of its blood vessels, to wit, the administration of ergot and post-pituitary extract. I am loath to concede that contraction plays so small a part, for the deep-rooted conception of the uterus as a contractile organ is not easily dispelled, and if one agrees with Whitehouse and others that menstruation is an afertile abortion, one is forced to retain one's belief.

It is said that uterine contraction constricts large sinuses and is the all-important factor after the third stage of labour and during the puerperium, but is not a factor in menstrual bleeding or the hæmorrhages under discussion, since menstrual bleeding occurs from capillaries. This statement lacks conviction, for capillary bleeding is controlled by thrombosis and the capillaries are fed by larger vessels in basal layer of the endometrium and subjacent myometrium, that is morphologically, those from which the sinuses of the placental site are derived. Besides, there seems no reason why the flow should not be turned off at the main as well as at the reticulation, even as on the gas stove. With regard to this there are two classes of case which strike one very forcibly.

In the first class is the patient who, getting out of bed after a confinement, experiences bleeding, due, I take it, solely to uterine inertia or true uterine insufficiency and controlled by ergot, pituitrin, massage and the encouragement of normal lactation by suckling. In the second class is the patient whose menstruation is normal after a confinement and whose uterus has involuted to a degree normal for the parous organ, but in whom, as the menopause approaches, menorrhagia appears. A plausible explanation[16] is that while the muscular fibres of the organ are able to maintain the balance of power they are able to help in the control of the larger blood vessels, even though a considerable amount of elastic tissue is situated in and around their walls, but, as the patient approaches the menopause or if her health fails, they lose tone or undergo atrophy and, though the flow may be diminished through the vessels, the balance of power is lost. The point is that the type of menstrual bleeding is altered, but not its rhythm. Therefore, I say, let us not be too ready to discard our old conceptions until the new ones have stood the test of time. The pendulum governs rhythm and the pendulum will swing, but eventually comes to rest in the middle.

Insufficiency in the Endometrium. The endometrium has been found to be thickened and hyperplastic in so many women affected with this type of hæmorrhage that Shroeder adopted the name *metropathia hæmorrhagica* for the now well known clinical entity in which hyperplasia is associated with ovarian changes and a well marked symptomatology. On the other hand, Whitehouse says: "We have been too inclined to look for and expect local changes in the endometrium and to label any abdominal appearances, *e.g.*, hyperplasia, as being the possible cause rather than the result of continued bleeding. We must remember that the uterus and ovaries are but two links in the sexual chain which are subservient to and are probably governed by the metabolic and nervous activities of the individual." He explains the hyperplasia or atrophy respectively to over-action or lack of action of ovarian hormones in the presence of a local factor, which, when there is a condition of uterine insufficiency, is the tendency to consequent opening out of the uterine cavity itself. That the uterine cavity does open out is a clinical fact known to us all. Whitehouse says: "Whenever a cavity is produced the endometrium under stimulus of ovarian either undergoes a diffuse growth or develops a polypus in an attempt to obliterate the same . . . . Intrauterine tension exerts a not unimportant influence upon the degree of regeneration of the endometrium which normally follows the termination of the pseudopregnant state. Diminished tone will favour endometrial overgrowth."

This view certainly correlates the facts observed in the conditions mentioned above and is an explanation of the *modus operandi* of the more common methods of treatment advocated. There are, however, other views; for instance, Wilfred Shaw[14] has put forward the suggestion that the endometrial change (cystic hyperplasia) is primary and comparable to the similar conditions found in the thyreoid, breast and prostate; he holds that this causes an inhibition of follicular ripening or of full formation of the *corpus luteum* and that in turn the ovaries respond by producing, continuously, a toxin, identical in nature with that which he believes to cause the disintegration of the premenstrual endometrium in normal menstruation. In consequence, necrosis of the superficial layers of the polypoid endometrium is brought about, with menorrhagia as a result. James Young,[17] in speaking of chronic infections of the cervix, says: "A survey of the pathology, taken in conjunction with the clinical features and, more especially, the frequency with which treatment directed solely to the cervix is followed by a restoration of the menstrual process has led me to the conclusion that we may formulate a satisfactory explanation of the phenomena as follows: (i) Infection of the cervix, leading to (ii) involvement of the ovaries by sympathetic disturbances, general pelvic congestion or inflammatory spread to the ovaries, leading to (iii) the uterine changes associated with menstrual excess. The establishment of such a view would naturally provide us with an explanation of many otherwise obscure uterine hæmorrhages and to at least a partial understanding of the so-called 'bleeding uterus' or *metropathia hæmorrhagica.*"

Hypomenorrhagia or Hypomenorrhœa.

The essential feature of hypomenorrhagia is prolongation of the intermenstrual period to thirty-five or forty-two days, associated with increased bleeding each day of menstruation and increase in the duration of menstruation. Wilfred Shaw refers to it as hypomenorrhœa and of his 200 patients 16 belonged to this group. There were only two in my series. The changes in the endometrium were the same as in the epimenorrhagic group. There were minor changes in the Graafian follicles and in some instances intense hyperæmia and follicular hæmatomata. It is better for the present, I think, to regard the epimenorrhagic group and this group as variations of one endocrine disorder.

Metrorrhagia or Metrostaxis.

The terms metrorrhagia and metrostaxis refer simply to intermenstrual hæmorrhage. The menstrual periods may be normal in rhythm and bleeding during menstruation is not necessarily excessive, but in the interval there is vaginal bleeding which usually stops before the next menstrual period, so that the patient recognizes the occurrence of bleeding apart from menstruation. Clinically the distinction between this type of hæmorrhage and irregular menstruation can be made by noting that it is not menstrual lochia which comes away, but bright red blood with clots. Signs of anæmia are often present.

TABLE II.

Mechanical or Anatomical.	Fundamental or Endocrine.	Dynamic or Psycho-neuro-vasogenic.	Constitutional or Symptomatic.
(*a*) Large fibroids, malignant growths.		(*a*) Retrovertion and acquired retroflection.	(*a*) Infectious diseases.
(*b*) Early pregnancy, with threatened abortion.	(*a*) Hypertrophy of endometrium.	(*b*) Sessile submucous and intramural fibroids (alone or with "a").	(*b*) Organic diseases as cardio-renal, hepatic, chronic valvular disease or diabetes.
(*c*) Ectopic pregnancy.		(*c*) Chronic tubo-ovarian disease (alone or with "a"), sclerocystic disease of ovaries.	(*c*) Chronic intoxications, focal sepsis, alcoholism, plumbism, syphilis.
(*d*) Hydatid mole.			
(*e*) Incomplete abortion.			
(*f*) Acute endometritis, salpingo-oophoritis (puerperal and non-puerperal).	(*b*) Shroeder's hyperplasia of endometrium.	(*d*) Hyperæmia of endometrium due to changes of climate, exposure to cold, long periods of betrothal, excessive venery, contraceptional methods, fear, anxiety *et cetera*.	(*d*) Hæmophilia, scurvy.
(*g*) True subinvolution or delayed involution.	(*c*) Wilfred Shaw's œdema and hyperæmia of endometrium.		
(*h*) The parous uterus, with placental polyp, fibroid polyp or carcinoma of body.			
(*i*) True chronic metritis and chronic endometritis.	(*d*) Thyreoid disorders, pituitary disorders.		

The ovaries in some instances are hypertrophied and sometimes cystic. In the absence of an obvious cause, the hæmorrhage must be ascribed in these cases to ovarian dysfunction, which results in oozing from an intensely hyperæmic intact endometrium.

A patient, aged twenty-two years, eighteen months ago suffered from moderately severe salpingo-oophoritis and recovered without operation. She now experiences an excess of blood-stained mucous discharge during the ten days prior to each menstrual period. The menstrual periods are quite regular and unaccompanied by pain; menstrual bleeding is not excessive.

Of course, during the reproductive age uterine hæmorrhage occurring after the patient has missed one or more menstrual periods is usually due to disturbances of pregnancy, such as abortion, extra-uterine pregnancy or hydatidiform mole, and presents little difficulty in diagnosis; but given a patient suffering from menorrhagia for which, by pelvic examination, one can find no obvious cause, such as cervical polyp, cervical carcinoma, large fibroid or ovarian tumour, but instead an enlarged, smooth (parous) uterus, and what are generally taken to be enlarged ovaries, one should suspect the condition already referred to as *metropathia hæmorrhagica* and proceed to exclude from the diagnosis such as may simulate it, namely, fibroid polyp, submucous fibroid and adeno-carcinoma of the body of the uterus. That is to say, one should perform a diagnostic curettage. No doubt we have all had experience of the woman between thirty-six and forty-five years of age who has had a period of amenorrhœa of five to eight weeks, followed by a period of continuous bleeding, or, again, the woman in whom menorrhagia or menostaxis over several months is followed by a "flooding" or a continuous bloody discharge lasting two to six weeks, and perhaps of such severity as to make her anæmic. If she has had amenorrhœa, she says: "Surely I am not pregnant, Doctor, at my age and going to have a miscarriage!" If, on the other hand, there has been menorrhagia and then a continued bleeding, she is inclined not to listen to your warning that it may be malignancy and she refuses a diagnostic curettage, ascribing the condition to "change of life."

Curettage.

Though a very common procedure, curettage is nevertheless one which is quite inadequately and peremptorily done. Quite apart from the dangers of perforating the uterus in post-abortional cases and the possibility of stirring up sepsis, apart also from the evil consequences of too rapid and too wide cervical dilatation and the misdirected application of force, there is a certain lack of appreciation of the objects to be obtained by curettage and a lack of finesse in using the instrument as a seeker. Obviously the operation will be useless if sound indications for its employment are absent. Therefore it should only be used to remove endometrium that is definitely abnormal, to provide drainage or to clinch a diagnosis. It may be worth while to mention that if the scrapings are to be of any value for microscopical examination, the instrument used must be sharp; as much of the endometrium should be removed as possible so as to get the deeper layers.

What is desired is one long, firm stroke on the posterior and one on the anterior walls of the uterine cavity—the diagnostic one-stroke curette. It is undesirable to use a flushing curette and hot lotion. The tissue removed should be washed in saline solution and placed immediately in rectified spirit or a 4% solution of formalin. At this juncture it will be useful to enunciate a clinico-pathological classification (see Table II).

Before passing to treatment, let me explain how retroversion, sessile submucous and intramural fibroids and chronic tubo-ovarian disease with cystic ovaries come to be placed in the dynamic or neuro-vascular column. When the uterus falls back, it drags the tubes and ovaries with it and exercises a pull and a twist on the broad ligament in which are the blood vessels; the artery is not likely to be constricted, but the veins, being thin-walled, are

liable to compression which leads to venous congestion. The turgid, bluish-red appearance of the tubes and uterus, which are often studded with subserous œdematous blebs and tacked down with adhesions, is a familiar sight at operation.

Congestion leads to œdema and subsequently to tissue proliferation. At first there is hyperæmia and later hypertrophy of the endometrium, and when the ovaries become cystic there may be hyperplasia. Of my fifty-one patients twenty experienced an altered menstrual rhythm; twenty-four did not. Of sixteen—all too few—patients examined eleven had an abnormality of the endometrium.

In the ovaries there occurs a thickening of the outer layer or *tunica albuginea*, which tends to prevent the bursting of the follicles. Finally, by the development of small cysts, degeneration of the ovary is brought about. Whether or not this is an explanation of the disease, it is probable that the secretory function of the ovary becomes upset and that endometrial changes and hæmorrhage occur; menostaxis or menorrhagia occurs in the early stages, epimenorrhagia in the late. The same pathological changes occur in chronic tubo-ovarian disease.

One must concur with Norris and Vogt and Wilfred Shaw when they say that submucous fibroids may produce endometrial changes and through them influence the ovarian function; though possibly both conditions are an endocrine or metabolic disease.

TREATMENT.

I propose briefly to discuss treatment according to the diagnosis and the sexual age of the patient.

Treatment of Hæmorrhage Occurring During Adolescence.

If it is assumed that epimenorrhœa and epimenorrhagia are of ovarian origin associated with a hasty and excessive maturation of the follicles, it will be believed that curettage has but little place in the treatment of uterine hæmorrhage of adolescents. *Corpus luteum* extract, preferably administered intramuscularly, should, theoretically, antagonize the malfunction; good results have been claimed from its use.

Small doses of X rays to the ovaries may do good by destroying the ripening follicles and allowing the primordial ones to mature more slowly.

Many of these girls are poorly developed and suffer from lassitude associated with a lowered basal metabolic rate. The exhibition of thyreoid extract is often beneficial. Since the same symptoms may be due to minor degrees of septic or toxic absorption, the removal of areas of focal sepsis is worthy of attention. If chronic tubo-ovarian disease is present, abdominal section may be required.

Paradoxical as it may seem, hyperthyreoidism and raised basal metabolic rate may underlie menorrhagia in young girls and *nulliparæ*. Usually there is no exophthalmos or obvious enlargement of the thyreoid, but the patients are thin and excitable. In this type of case the application of X rays to the thyreoid gland has been beneficial. The more obvious the hyperthyreoidism and the higher the basal metabolic rate, the better is the result to be expected.[18]

Following Blair Bell's idea of giving fresh calcium lactate, I have prescribed his mixture along with parathyreoid tablets for a week or two prior to menstruation, and have had the impression that the bleeding and dysmenorrhœa which sometimes accompanies it were lessened in a number of instances. Whether this is owing to an increased coagulability of the blood or to a more subtle mechanism, such as that to which I have referred when dealing with the physiology of menstruation, it is difficult to say.

If the bleeding persists in spite of the exhibition of any or all of these remedies, an examination under an anæsthetic may be warranted and curettage performed, especially in *nulliparæ*. The scrapings should be examined and, if an endometrial lesion is found, radium may be applied in doses of 250 to 600 milligramme-hours, that is, 50 milligrammes for a period of five to twelve hours. Of course, this is a late resort in the treatment of young women for fear of establishing a permanent amenorrhœa. However, this is not likely if small doses are used for short periods, since intrauterine radium acts mainly on the endometrium (Forsdike[19]) and only slightly on the ovaries. Small doses affect only the ripe and ripening follicles, not the primordial ones or the interstitial cells.

Blood transfusion and hysterectomy may be life-saving measures on very rare occasions in this class of case, and are mentioned only for the sake of completeness.

Paraclimacteric Hæmorrhage.

It must never be forgotten that preclimacteric, climacteric and postclimacteric hæmorrhage may be malignant in origin; therefore in those cases in which our examination has not revealed a satisfactory explanation of the bleeding the first thing to do is a curettage. This will be of diagnostic value and may be curative if the condition is a mucous polyp or hyperplasia of the endometrium, but more often than not it will be palliative only. Beware of any patient who has to be curetted a second time, and, if you have not already done so, always have the scrapings examined and, in addition, be on the look-out for submucous fibroids or fibroid polypi. Do not forget that such conditions shepherd a malignant transformation in the endometrium just beyond and inaccessible to the seeker.

In the absence of definite change in the endometrium, *corpus luteum* extract may be tried with the hope of retarding the follicular activity, but if this fails, hysterectomy should be performed. If the cervix is grossly diseased, total hysterectomy should be done, otherwise subtotal hysterectomy suffices;

the ovaries should be left in either event. An alternative method in suitable cases is the insertion of radium in a dosage of 50 milligrammes for a period of 72 hours.

Hæmorrhage of Sexually Mature Nulliparæ.

In the treatment of hæmorrhage of the sexually mature *nulliparæ* and women of the child-bearing age, the use of the curette is, other things being equal, much more often indicated than in the treatment of hæmorrhage of puberty. Very often the hæmorrhage is secondary to some acquired disease, usually of an inflammatory nature; treatment then is not difficult. In other instances, particularly of the metropathias when anæmia is present or when bleeding is associated with the presence of fibroids, the prevailing method of treatment is subtotal hysterectomy with conservation of the ovaries.

Now while lack or diminution of menstruation can be said to cause no serious interference with the general health, there is an important consideration in these cases; that is the disturbance to the psychical state of the individual concerned; regular menstruation appears to the average woman to be tangible evidence of normal ovarian function. This disturbance may be slight and transitory, but in a few instances may be severe enough to amount to a profound and lasting depression which may even approach the border-line of mental instability. In dealing with women of neurotic temperament, therefore, a special effort should be made to save the uterus. In the treatment of these women intrauterine radium in a limited dosage and X ray therapy to the ovaries or thyreoid have a special place. X radiation applied to the thyreoid is capable of relieving hæmorrhage in some instances; when applied to the ovaries in suitable dose it may create a temporary or partial menopause. As a rule, however, in my experience most women suffer no more than a passing regret for the loss of their womb, especially when the reason for its removal has been explained to them.

Now I believe that subtotal hysterectomy is still the procedure of choice in the majority of instances for the treatment of fibroids not involving the cervix and not complicated by cervical carcinoma, as there are definite limitations to radium and X ray therapy. But in considering treatment the evidence I have presented of a coordinated function between the endometrium—itself a ductless gland—and the ovary should be taken into account. I am convinced, therefore that in the treatment of women under the age of forty years, when subtotal hysterectomy is performed, the ovaries should be conserved unless they are grossly diseased, and I believe that a definite effort should be made to leave a part of the endometrium with the lower third of the body of the uterus and that the cervix should be treated on conservative lines by diathermy or Stermdorff's or Schlink's operation. Of course, this is not to say that myomectomy is not preferable in many instances. I believe it is and am inclined to think it is a somewhat neglected procedure, notwithstanding its danger of reactionary hæmorrhage which, needless to say, can be mitigated by careful technique and the more modern electric surgery.

There are certain other cases of chronic adnexal disease in which one may compromise in the way I have suggested by performing a partial hysterectomy by the method of Blair Bell[20] and Beuttner. The endocrine balance and peace of mind and health of body of such women may thus be conserved for more than two years, the period which Fothergill[21] considered the limit of time during which the ovaries could function after hysterectomy. It may well be that the changes that have been found in the ovaries after hysterectomy are not so much due to operative interference with the circulation as to the removal of the functionally correlated endometrium. Why do we hear so much about the menopausal symptoms, whether these are delayed for two years or not, after subtotal hysterectomy and so little after such operations as double salpingectomy or the Baldy-Webster operation as a result of which the circulation of the ovary must be considerably upset in many instances?

At all events recent advances in our knowledge of the physiology of menstruation and of the endocrine functions of the ovary and the endometrium demand a reconsideration of our methods, more especially as we have in radium a method of attacking the endometrium alone (Forsdike) and in X rays and bomb-radium of influencing the ovary and the other endocrine glands in the sex-complex chain, more especially the thyreoid and pituitary, but also the spleen.

Conclusions.

1. An understanding of the function of menstruation must be based on a knowledge of its comparative and its intrinsic physiology, together with the histology of the cyclic changes in the ovary and the endometrium.

2. Except in the case of bleeding due to retained products, fibroid polypi and carcinoma of the body, irregular uterine bleeding is extrauterine in origin, and often extrapelvic; to the latter class belong the metropathias.

3. Chronic metritis is an infrequent condition associated with chronic interstitial endometritis, the late result of which is true *fibrosis uteri.*

Paraclimacteric fibrosis is only a relative condition and not inflammatory in origin.

So-called chronic subinvolution is apparently a misconception; it should be termed "the parous uterus."

None of these conditions usually causes uterine bleeding. They may aggravate or prolong it.

4. Endometritis does not exist except as a transitory condition in the course of an acute severe utero-pelvic infection.

5. Before the menopause the uterus is not an organ to be lightly dispensed with, because, quite apart from its gestational function, it is lined with a very complex and ever changing glandular struc-

ture possibly possessing, besides an endocrine function, a function relating to calcium economy in the female organism; on this account when it is subject to hæmorrhage not due to malignancy or large fibroids, due consideration must be given to such procedures as partial hysterectomy or myomectomy with ovarian conservation, X radiation of the thyreoid, pituitary and spleen. Failing these procedures, the less ideal destruction of the endometrium by radium or surgical diathermy may be practised, for, from the endocrine point of view, half a loaf is better than no bread and hot flushes.

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The working up of the material which forms the basis of this paper had just been completed and the actual preparation of the paper started when the very significant work of Wilfred Shaw appeared. To this latter work I must express myself deeply indebted. I have also made free use of Professor Beckwith Whitehouse's publications and am none the less appreciative of his efforts to elucidate the problems pertaining to his work. I wish to thank also Dr. Duhig for his invaluable assistance and cooperation and to record my appreciation for that afforded by Dr. Elliot-Smith, my clinical assistant, and Dr. Malcolm Carseldine, Dr. Jean Rowntree and Dr. Mansel Frazer, resident medical officers at the Lady Lamington Hospital for Women, in collecting the records of the 201 in-patients reviewed in this paper.

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Reports of Cases.

INTESTINAL OBSTRUCTION DUE TO RING CANCER OF THE RECTUM.[1]

By E. M. FISHER, M.B., Ch.M.,
Honorary Assistant Surgeon, Royal Prince Alfred Hospital.

A.A.B., AGED 46 years, a steward, was admitted to the Royal Prince Alfred Hospital on May 13, 1926, with intestinal obstruction. His symptoms started nine days previously and had been gradually getting worse.

On May 13, 1926, laparotomy revealed a ring carcinoma of the colon about five centimetres (two inches) from the floor of the recto-vesical pouch. The bowel was drained by a caecostomy. On June 25, 1926, abdomino-perineal resection of the rectum was carried out. On September 3, 1926, the caecostomy was closed.

Experience has shown that resection and anastomosis of the large intestine in the presence of obstruction carries a high death rate. This rate is greatly reduced if preliminary drainage of the bowel above the obstruction is carried out.

Is laparotomy necessary? If the site of the obstruction is known to be in the lower half of the colon it may be omitted. The symptoms and signs may clearly indicate a low obstruction, although it is rare to be able to feel a mass in the presence of obstruction except on rectal examination, which should be carried out in every case.

Sir Henry Newland suggested at the last congress in Sydney that an opaque enema was no more difficult to administer than an ordinary enema, and gave valuable information about the location of the obstruction. I think we should preserve an open mind about laparotomy and decide every case individually. Obstruction is not always due to ring carcinoma and the cause may be dealt with in some cases at once. Laparotomy may show an inoperable carcinoma low down in the colon which may need a permanent colostomy and this can be done at the site of election at once. On the other hand, it may be an unnecessary addition to simple drainage and may be too much for people who are very ill.

What is the best way to drain the bowel? I prefer caecostomy and have found it satisfactory, but not caecostomy by means of a tube. The ordinary muscle splitting incision is made and the dilated caecum is gently pulled into the wound, and if there is any difficulty in delivering it, the gas is removed with a needle attached to the sucker—the contents of the caecum are too thick to run through an ordinary cannula. This allows part of the caecum to be brought up easily to the skin. It is first fixed to the parietal peritoneum by catgut sutures which are interrupted. A continuous stitch may greatly narrow the caecum and interfere with drainage. The caecum is fixed to each layer of the wound by a suture at each end and any excess in the opening of the muscles is closed. It is then opened for about eighteen millimetres (three-quarters of an inch) and the edges sewn to the skin by interrupted silk sutures. This type of caecostomy drains well, which a tube does not always do; it is easy to carry out and can be done for patients who are very ill under a local anæsthetic. It is also a valuable asset if an excision and anastomosis can be carried out later.

One drawback is that it has to be closed by operation and this is done by occluding the opening with stitches. Then after gloves, instruments and sheets are changed, an incision is made surrounding the whole scar and is

[1] Read at the first annual reunion of the Royal Prince Alfred Hospital Residents' and Ex-Residents' Association, October 7 to 11, 1930.

deepened till the muscles are reached. The caecum is then dissected free from muscles and peritoneum and pulled out through the wound. It is found that the portion which has been extraabdominal, is like a diverticulum and can be clamped and removed without narrowing the caecum. Another drawback is that it is not low enough down for a permanent colostomy, if found necessary, and also that the contents make the skin inflamed and tender.

At the second operation the edges of the caecostomy wound are approximated with sutures and after gloves *et cetera* have been changed, the mid-line wound is made. After the completion of the operation the wound is covered with gauze and Friar's balsam, and the caecostomy reopened twelve hours later. In this way infection is avoided. If possible, the growth is removed and an anastomosis made or permanent anus formed as in this instance. This man illustrates how a patient can quite well carry on his occupation without a rectum, which he has done now for four years.

By careful attention to diet he is able to avoid food which makes his colostomy leak intermittently and now he empties his bowel every morning and after that he usually goes through the day without staining the pad; in the evening his colostomy acts and then he is quite comfortable till morning.

If the growth is inoperable and a permanent colostomy is necessary, this is done at the site of election and the caecostomy wound can be closed either at once or later.

Reviews.

BRIGHT'S DISEASE AND ARTERIAL HYPERTENSION.

DR. FISHBERG'S "Tuberculosis" is a standard work. His new book on nephritis and hypertension is likely to attain an equal popularity, for it covers the subject with the thoroughness and accuracy essential to such a book.

Dr. Fishberg begins with the function of the kidney and after several pages of discussion he lays it down that the essential function of the kidney is to secrete and the most important factor in this secretion is concentration.[1] With this as his guide he turns to the question of renal efficiency tests and again decides that the most important of these tests are those concerned with concentration. For this reason he places the Mosenthal test and McLean's urea concentration test in the first rank, putting both above the phenolsulphonephthalein test of Geraghty and Rowntree.

He discusses the question of blood chemistry in detail and here again it is pleasant to find him insisting on simplicity and that the most important test in the whole series is estimation of the blood urea content. The estimation of non-protein nitrogen, creatinine, phosphorus, uric acid and the rest are in most cases only an unnecessary labour and expense.

In classification on the whole, Dr. Fishberg follows Volhard and Fahr, but he holds himself at liberty to differ at times notably in subdividing the nephroses into larval, necrotizing, chronic and amyloid, placing embolic nephritis in a class by itself, separating arteriosclerotic diseases into essential hypertension including the malignant phase, and an entirely separate class, the senile arteriosclerotic kidney.

Probably the most interesting chapter in the book is the discussion on that much debated subject, the nephroses.

Dr. Fishberg has had the great advantage of working beside Dr. Epstein at the Mount Sinai Hospital and as a result speaks as the appreciative critic. He refuses to accept all the cases of "large pale kidney" or "chronic parenchymatous nephritis" as being examples of "chronic nephrosis" and insists that there is also a form of chronic glomerulo-nephritis, following in most cases an acute nephritis, which clinically at least simulates nephrosis.

The relationship of the chronic glomerulo-nephritis of the nephrosis type to that of the chronic interstitial type is considered at length; and evidently as the result of personal observation the sequence, acute glomerulo-nephritis, chronic glomerulo-nephritis of the nephrosis type and chronic glomerulo-nephritis (not interstitial type) is shown to be a matter of fact.

The question of cure and prognosis in all three conditions is a very difficult and grave one, especially in life assurance, and here again Dr. Fishberg speaks from ripe experience and gives much useful advice; as a sign of progress he lays much stress on the specific gravity of the morning urine. He rightly insists on the ever constant danger in which the apparently cured nephritic lives from such conditions as intercurrent infections of the nose and throat and in women, pregnancy especially. High blood pressure is always a grave sign and fits are not necessarily of immediate fatal import.

A chapter is devoted to a subject which seldom receives much notice in text books on nephritis, "focal nephritis, acute interstitial nephritis and multiple granular embolization in subacute bacterial endocarditis." To these subjects some thirty pages are given up.

Curiously enough the surgical kidney is not mentioned apart from the embolic type, nor the pyelo-nephritic type secondary to ureteric or urethral obstruction. It is in such cases as this that the so-called "functional depression" of secretion is most apt to occur, and here the tests for renal efficiency are of the greatest value.

Dr. Fishberg does well to direct attention to the comparative frequency of chronic nephrosis (of the true Epstein type) in quite young children.

The sections on treatment are as sound as practical experience can make them.

Eye changes have an excellent chapter, and Dr. Fishberg insists on these changes being due to hypertension, not to the nephritic element, so he heads his chapter hypertensive retinitis.

Both the clinical aspects, the pathology and the pathological anatomy receive full attention, while a short note is devoted to complications and healing. The importance of the condition naturally receives the emphasis it deserves.

Indeed the outstanding chapters in the book are those which deal with hypertension. As Dr. Fishberg points out it is the increasing use of the sphygmanometer which has made the existence of essential hypertension so much more generally recognized and especially the prevalence of malignant hypertension. These chapters are of absorbing interest, especially those on ætiology and treatment. Both leave us feeling very hopeless, but with the feeling that it is better to know confidently that we do not know (the effect of diet on hypertension for instance) than to imagine vainly that we do know.

The discussion of ætiology is prolonged and broad minded. No theory almost is too wild to be considered, no widely held belief is too firmly established to escape acute destructive criticism; thus while lead is accepted, the septic focus theory gets little recognition.

In the chapter on treatment the author in similar fashion discusses one method of treatment after another, usually to conclude with the phrase: "but we have no satisfactory results" or "other workers fail to obtain So-and-So's results." In fact it is the effect of personal knowledge which comes through the pages which is the book's most striking feature.

The book is written in a delightful style, English rather than American being the language adopted. Its arrangement is so logical that the classification is always kept in view and the authorities quoted are much more cosmopolitan than are those of the average American text book.

There is an excellent index and no misprints were found. The printing is good, the paper not too heavy and glossy, the illustrations (of pathological specimens) are excellent, and the binding is in a pleasant, rough cloth which neither becomes sticky nor is of attraction to the domestic cockroach. Altogether it is a book to buy, to study, to keep at hand for reference, but on no account to lend. It should be in the possession of every practitioner and house physician, while the senior student would find it well worth his serious study.

[1] "Hypertension and Nephritis," by Arthur M. Fishberg, M.D.; 1930. Philadelphia: Lea and Febiger. Royal 8vo., pp. 582, illustrated with 33 engravings and one coloured plate. Price: $6.50.

The Medical Journal of Australia

SATURDAY, JANUARY 10, 1931.

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POST-GRADUATE TEACHING IN ENGLAND.

AUSTRALIAN graduates in medicine are being brought more and more to a realization of the desirability, nay, the necessity, for post-graduate study. It is recognized, as Sir Richard Stawell pointed out in his recent Halford Oration, that the efficiency of the Australian graduate in medicine is high and compares favourably with that of graduates from universities in other parts of the world. In the past, before the ranks of the medical profession in Australia became so closed as they are at present, it was a comparatively easy matter for a recent graduate to make a good living. In these circumstances there was sometimes a tendency to be content with the proficiency of initial attainment and to live in a lucrative groove. Of course, those with ambition soon lifted themselves out of the groove and sought instruction either near at hand or overseas. Until recently facilities for post-graduate study in Australia were somewhat limited; at present they are greater, though they are far from ideal. Post-graduate classes in Australia are well attended, but numbers of men and women journey to the other side of the world in the search for knowledge.

Graduates desirous of undergoing courses of training in special branches of medical science have found that they can best obtain the kind of training they seek in European centres or in the United States of America. In such cities as Vienna, Berlin, Paris and New York adequate provision is made for post-graduate students. From time to time practitioners returning from these centres to Australian shores have been unable to speak too highly of the kindness and courtesy extended to them or of the arrangements made to enable them to study. In Great Britain the same satisfactory arrangements have not existed. The Fellowship of Medicine has during recent years done a great deal to make good the deficiency, but no organized attempt has been made until recently to secure the recognition of London as a post-graduate centre. This state of affairs is to be deplored, for the standard of British medicine is certainly equal to that of any other country; British teachers of the foremost rank are available and there is clinical material in abundance. A change, however, is soon to be made.

When Sir Ewan Maclean was in Australia in 1929 as representative of the British Medical Association in England at the third session of the Australasian Medical Congress (British Medical Association), he indicated that the British Medical Association was taking an active part in the elaboration of a scheme for the establishment of a post-graduate hospital in London. Since then mention has been made of the scheme from time to time in *The British Medical Journal*. The need for the extension of post-graduate facilities in Great Britain has been considered by the Federal Committee of the British Medical Association in Australia and the Federal Committee communicated with the secretary of the parent body in the matter. The Victorian Branch also wrote to the Secretary. The reply to the Victorian Branch was published in THE MEDICAL JOURNAL OF AUSTRALIA of September 27, 1930. The reply to the Federal Committee was couched in similar terms. The main facts set out in the letters may be summarized in the statement that the British Government has accepted the recommendation of a special committee that a "British Post-Graduate Hospital and Medical

School" be established at the Hammersmith Hospital. The Government is prepared to grant from public funds the sum of £250,000 for building and equipping the medical school and to make provision for grants through the University of London towards the maintenance of the school on the lines already applied to comparable institutions of university rank. The Minister of Health has also appointed a Provisional Organization Committee which is to plan the construction of the school and to lay down its constitution.

It is clear that the foundation of a useful body has already been laid. The Hammersmith Hospital has four hundred beds and with these beds, associated with a medical school planned on modern lines, teaching of the highest order should be obtainable. The success of the school will, of course, depend on the personnel of the staff and primarily on the man chosen as the administrative head. A great deal will also depend on the arrangements made for the reception of students and on the curriculum. The Englishman is notoriously slow to adopt the customs of other countries. In the organization of the new hospital and medical school he would be well advised to seek out what is good from the centres already mentioned, which at present attract visitors from overseas. The reputation of British medicine will surely do the rest. In the meantime medical practitioners anxious to undertake post-graduate work abroad should remember that, though it may be somewhat difficult of arrangement, post-graduate study may be carried to a successful issue in Britain, even under present conditions. The officials at the headquarters of the British Medical Association in Tavistock Square are always glad to welcome members of the Association from overseas Branches and to help them in any way possible.

Current Comment.

PULMONARY ABSCESS.

ABSCESS of the lung has been known from the time of Hippocrates. In recent times consternation has arisen in the United States of America at the occurrence of such abscesses after operations on the upper respiratory tract and attention is now being focused on operations of this type as causative factors in their production. C. W. Richardson, in 1912, observed that lung abscess might follow tonsillectomy under general anæsthesia. In a series of 1,908 instances of lung abscess reported by S. A. Schlueter and I. F. Weidlein, 29·6% were post-operative and tonsillectomy contributed to more than half of these. On the other hand, a series of 450,000 similar operations recorded by W. F. Moore revealed an incidence of lung abscess of between one in 3,000 and one in 2,500. At the Mayo Clinic there were but two lung abscesses in 20,000 similar cases. H. W. Lyman has recorded 20,000 tonsillectomies with nitrous oxide anæsthesia without one such abscess. There seems, therefore, little warrant for undue apprehension in this regard. Lung abscess according to some observers may be primary, but for many years pneumonia has been considered a precursor. A. L. Lockwood, however, in 1923 pointed out that pulmonary abscess is a rare sequela after lobar pneumonia, but is possibly more frequent after bronchopneumonia. Experimental and clinical data suggest the possibility that a primary stage of pneumonia may precede and be a vital factor in the mechanism of abscess formation.

H. I. Spector has made a study of thirty-five examples of non-tuberculous abscesses of all types seen at St. Mary's Infirmary.[1] He refers to the two main theories of the mode of entrance of the causative organisms into the lungs after tonsillectomy. According to the bronchogenic theory, they gain access by way of the bronchi, through aspiration. The hæmatogenous theory postulates entrance by way of the blood stream in septic emboli. In favour of the latter is the relatively frequent development of abscess after operation under local anæsthesia, also the high incidence after operations on infected areas and the late occurrence of symptoms. In favour of the bronchogenic hypothesis is the common association with general anæsthesia; also the evidence that aspiration does occur and the high incidence after operation on the mouth and throat and the frequency with which the lower lobes are affected. W. H. Wynn has pointed out that aspiration abscess can be produced experimentally if the cough reflex be controlled long enough to allow infected fluids to settle in the alveoli. It seems certain that even local anæsthesia interferes with the protective mechanism of the cough. Any patient undergoing tonsillectomy under local anæsthesia may aspirate material entering the pharynx during operation. Whatever tends to abolish cough reflex during anæsthesia or to increase cough after anæsthesia may be a factor in producing lung abscess. Possibly both hypotheses must be called upon to provide explanation of some post-operative lung abscesses.

Apart from operations on the upper respiratory tract, non-tuberculous abscess may follow injury to the chest and intrathoracic organs, or organisms may enter the lung from an adjacent suppurating focus, as through the diaphragm, and cause abscess. There is both experimental and clinical evidence

[1] *The Journal of the American Medical Association*, September 13, 1930.

to show that chronic infections of the upper respiratory tract, preexisting bronchopulmonary pathological changes and retention in the lungs of anaerobes ordinarily found in the oral cavity, may all play a part in the production and chronicity of pulmonary abscesses.

Joannides, from experiments on dogs, concluded that the following factors were of importance: abolition of pharyngeal and cough reflex in general anæsthesia; the presence of blood, mucus or gastric contents in the mouth; the presence of fuso-spirochætes in the oral cavity; chronic infection in the nose, paranasal sinuses and mouth; size and physical state of the aspirated material; the action of cilia in clearing the bronchi and trachea and the specific immunity of the lung to certain infections.

Lung abscesses may be classified as originating in the bronchi (bronchiectatic), parenchymatous and embolic (extrabronchial). Those originating in the bronchi mainly follow operations on the upper respiratory tract. They are chiefly due to aspiration of infected matter (sometimes associated with foreign bodies) particularly during anæsthesia, but also when unconscious from other causes. Parenchymatous abscesses are often single. They may follow pneumonia or other infective processes, but are rare after pneumococcal pneumonia unless complicated by secondary infection with pyogenic organisms. The "suppurative pneumonitis" of American writers may result from widespread infection by way of the air passages. Abscess may also result from the disintegration of a tumour mass. Embolic abscesses are often multiple. They may be associated with right-sided infective endocarditis, septicæmia or local septic foci at a distance, such as infective thrombophlebitis, appendicitis or *otitis media*.

Harkavy considers that the development of abscess is probably as follows. Aspiration of bacteria first produces pneumonia. Then the active blood circulation is impeded and a diminution of local tissue resistance follows. Then occurs a rapid increase of the organisms (many of which are proteolytic), together with toxins and inflammatory products, including enzymes. Liquefaction of the tissues and abscess formation ensue. The act of coughing may infect other areas of the lungs by distributing organisms from the original necrotic focus.

Spector's article gives a full account of the symptomatology of the condition, with the physical signs, which may be obscure, and the diagnosis, which may be difficult and necessitate X ray examination for its elucidation. Lung abscess does not appear to figure prominently in the statistics of hospitals in the Commonwealth. It would be interesting to ascertain, if possible, the proportion of abscesses that have occurred following tonsillectomy or other operations on the upper respiratory tract. A great deal of attention at the present time is given to treatment by such means as phrenic avulsion and artificial pneumothorax. It must not be forgotten that the discovery of causes is infinitely more important than treatment.

"CONGENITAL" ANEURYSMS OF THE CEREBRAL ARTERIES.

INTRACRANIAL aneurysms, particularly those occurring in the circle of Willis and its large branches, were discussed by P. P. Lynch at the Third Session of the Australasian Medical Congress (British Medical Association). Lynch emphasized the importance of distinguishing between the so-called congenital aneurysms and those due to atheroma *et cetera*. He concluded that syphilis is not an important cause and that when these aneurysms are not of embolic origin they are due to a congenital defect in the vessel wall. The pathogenesis of these aneurysms is most interesting and its bearing on the clinical aspect is of obvious importance. Lynch quoted the conclusion of Drennan who stated that the "congenital" aneurysms are due to a "plumbing" defect in the vessel wall. He also referred at some length to the work of Busse. Other workers on this subject are Turnbull and Fearnsides. The "plumbing" defect of Drennan is similar to that described by Busse and is a defect in the *tunica media*.

Wiley D. Forbus has made a study of this subject[1] and states that he has found "a hitherto undescribed peculiarity in the structure of the walls of the arteries, upon which . . . the formation of miliary aneurysm depends." He adds that "this peculiarity consists in a muscular defect in the media located in the portion of the vessel wall forming the angle of bifurcation." The words "hitherto undescribed" are obviously incorrect; in the course of his discussion Forbus refers repeatedly to the conclusion of Busse and others. His final conclusion is perhaps different from that of others, in that he attaches great importance to the *tunica intima*. These aneurysms are "acquired lesions arising from a combination of focal weakness in the vessel wall, resulting from a congenital muscularis defect, and degeneration of the internal elastic membrane, due to continued over-stretching of this membrane." Obviously the aneurysm is the result of intravascular pressure and dilatation cannot occur without some interference with the elastic membrane. Forbus describes this as a degeneration, the result of pressure, leading to total disappearance of the layer. He regards the medial defect described by him as "probably" quite different from the structural peculiarity described by Busse and Emrich. There is no evidence of this difference. Be that as it may, Forbus has written an article full of interest and has recorded ingenious experiments with glass tubes forked to represent arterial bifurcations. He has shown that the point of greatest pressure is always that corresponding to the point in the vessel wall where the longitudinal axis of the impinging column intersects the vessel wall; and that the difference between the pressure at different points in the vessel wall increases as the velocity of the stream increases and as the size of the angle of bifurcation increases. In other words, it is the anatomical arrangement which determines the occurrence of aneurysm in an imperfectly formed vessel.

[1] *Bulletin of the Johns Hopkins Hospital*, November, 1930.

Abstracts from Current Medical Literature.

BACTERIOLOGY AND IMMUNOLOGY.

Brucella Abortus.

CESARE AMATUCCI MALLARDO (*Journal of Tropical Medicine and Hygiene*, May 1, 1930) discusses the possible identity of *Brucella abortus*, *Brucella melitensis* and *Brucella paramelitensis*. A considerable amount of research work on these organisms has been carried out in many countries. As no differences between them can be determined by laboratory measures, the organisms are classified according to their origin. The author studied their appearances in culture and their action on numerous sugars and could detect no difference between them. He then cultured each in symbiosis with various other organisms and fungi and made daily observations on their action on sugars over a period of twenty-one days. The three species of Brucella exhibited precisely similar characteristics when grown under such conditions.

The Ætiology of Lymphadenoma.

C. C. TWORT (*Journal of Pathology and Bacteriology*, July, 1930) summarizes the result of researches into the ætiological factor of lymphadenoma. The investigations carried out included microscopical examination of sections, animal experiments, cultivation experiments and examination of patients. The conclusions reached are as follows. The ætiology of lymphadenoma remains obscure. The authors could consistently demonstrate no specific animal or vegetable parasite in the diseased tissues either by direct microscopical examination, cultivation or animal injection, in spite of the numerous artifices adopted. Cultures of *ante mortem* lymphadenomatous glands were in almost all instances sterile and the authors were unable to repeat the positive animal infection experiments which many other workers have been fortunate enough to obtain. An assortment of other *in vivo* and *in vitro* experiments gave absolutely barren results; in fact so invariably did the different experimental procedures adopted lead to nothing, that the authors might have been dealing with a true new growth instead of what was generally accepted to be a granuloma.

The Filtrability of Yellow Fever Virus.

JOHANNES H. BAUER AND ALEXANDER F. MAHAFFY (*American Journal of Hygiene*, July, 1930) carried out experiments, the results of which indicate that yellow fever virus passes readily through Kieselguhr and porcelain filters of the finer grade under moderate pressure, and appears in the filtrates in relatively high concentration. The results failed to show definitely how much of the active agent passed through and what proportion of it was absorbed and retained by each particular filter tested. During the course of the study it became evident that normal physiological saline solution used as a diluent has a pronounced deleterious effect on the virus. The virus dies out rapidly when suspended in normal saline solution, Locke's solution, Ringer's solution, hormone broth or distilled water; but it was found that when 10% or more of normal rhesus serum was added to saline solution or distilled water, the deleterious effect of these media upon the virus was very much reduced. The virus in mosquitoes was found not to differ from that of blood in filtrability. The results obtained indicate that the virus of yellow fever is exceedingly small in size and probably lies beyond the limits of microscopical visibility. In the degree of filtrability and in its occurrence in very high concentration in the blood of infected animals, it appears to resemble closely the virus of foot and mouth disease. No evidence is available that more than one form of the virus exists or that the virus in blood differs from the virus in the mosquito.

Filtration of Bacteriophage.

NEWTON W. LARKUM AND MARGARET F. SEMMES (*Journal of Bacteriology*, March, 1930) investigated the problems associated with the filtration of bacteriophage and formed the following conclusions. Bacteriophage in passing Mandler and Seitz filters is removed from suspension at hydrogen ion concentration of pH 4·5 to 5·0 and pH 9·0 to 10·0. The behaviour of these two filters in this respect is identical. Both Seitz and Mandler filters have a slight qualitative effect upon bacteriophage, although neither affects quantity of phage at a neutral reaction. Plaster of Paris filters remove bacteriophage from suspensions at a hydrogen ion concentration of pH 7·0, but permit its passage at pH 4·5 to 5·0 and pH 9·0 to 10·0. They reduce the amount of protein in a similar manner. Bacteriophage, as well as negatively charged dyes, saturates plaster of Paris filters rapidly. It appears from these observations that bacteriophage is adsorbed to the protein in the suspensions.

A Method of Staining Bacterial Flagella and Capsules.

EINAR LEIFSON (*Journal of Bacteriology*, September, 1930) gives details of a method of staining bacterial flagella and capsules. The use of perfectly clean slides is essential. The organisms are best grown in *bouillon* for twelve to twenty-four hours; this is then centrifugalized, suspended in distilled water, recentrifugalized and resuspended to give a slightly milky suspension. Good results are also obtainable by making a dilute suspension of the organism from an agar slope. Suspended in distilled water the flagella on the typhoid bacilli were found to remain intact for one month. Details of the stains used are given. The stains will keep for a week or more in tightly stoppered bottles. A counter stain is not required for preparations of flagella, but is obligatory for capsules. Evidence is produced to show that flagella may not be of ectoplasmic origin, but may originate in the endoplasm. Sporulating organisms were shown to retain their flagella, although fully sporulated. Flagella and capsules may be coexistent. When both are present they take the colour of the stain, while the organisms take the counter stain. Some appearances noted indicate that flagella are not homogeneous, but contain masses of nuclear material distributed at regular intervals.

The Colloidal Gold Test in Experimental Poliomyelitis.

C. W. JUNGLE AND D. KHORAGO (*Journal of Immunology*, September, 1930) summarize the results of their investigations on the colloidal gold test in experimental poliomyelitis as follows. Samples of spinal fluid taken from poliomyelitic monkeys on the day of the onset of symptoms, show with considerable regularity, that is, in 75% of cases, a colloidal gold curve characterized by a well-marked elevation in the second, third or middle series of dilutions. The curve thus seems to fall into the so-called luetic zone, although the reactions were, as a rule, not so pronounced as in syphilis. As the infective process progresses, there appears a change in the curve which manifests itself either as a shift forward or in most cases as a complete flattening out to a curve which is practically indistinguishable from the reaction of the normal monkey spinal fluid. Any possible diagnostic value of the test in the monkey would thus be limited very largely to the earliest stages of the disease. Whether this subsequent change in the type of curve is related to a characteristic development of the pathological condition in the central nervous system or whether it has any bearing on the possible presence or absence of the virus in the fluid, the authors are unable to state at present. Another important feature of this work seems to them to lie in the close similarity between their results and those recorded by other investigators for poliomyelitis in the human being, thus indicating the far reaching analogy between the original human disease and the experimentally produced infection.

Typhoid Agglutinin Production.

C. A. BEHRENS AND C. H. KEIPPER (*Journal of Immunology*, September, 1930) studied the rôle played by dosage, total amount of agglutinogen injected and frequence of inoculation. Rabbits, half to three-quarters grown, were used and all injections were made

intravenously. The typhoid vaccine used contained two billion organisms per cubic centimetre killed by heating at 58° C. for one hour. The titres of the sera were obtained by incubating the dilutions for one hour at 37·5° C. The results were read and the tubes placed in the ice box, where they were observed at regular intervals up to seventy-two hours. The authors summarized the results of their investigations as follows. Frequency of injections plays a major rôle in typhoid agglutinin production. A close relationship exists between the interval of injections and the dose employed. Total amounts of agglutinogen injected have but little direct influence. Emphasis is laid on the axiom of frequent stimulation of the body cells by the use of small doses of agglutinogen and by larger doses as the intervals between inoculations are increased. Typhoid agglutinins with greatest potencies are produced by injecting 0·1 cubic centimetre frequently, 1·0 cubic centimetre less frequently and 5·0 cubic centimetres still less often. Typhoid agglutinins of equal potencies are elaborated irrespective of dosage when inoculations are made every third day. Increasing the dose each injection results in agglutinins with much higher titre than when the reverse is true. Physical deterioration of the rabbits showed its effect on agglutinogen production.

HYGIENE.

Clinical and Pathological Factors Underlying Mortality Rates from Tuberculosis.

S. LYLE CUMMINS (*Proceedings of the Royal Society of Medicine*, June, 1930) discusses some of the complex factors that lie behind tuberculosis mortality. There are, he points out, at least three sets of circumstances to be considered: those concerned with infection, those related to the development of infection into disease, and those leading on to or postponing the fatal termination. Further, each of these three sets is dual in nature, depending both on germ and on organism. The first tuberculous infection has what the author terms a larval stage, wherein a lesion develops near the point of entry of the tubercle bacillus, involving also the nearest lymphatic glands. This is usually seen in childhood and is not very active, but it is a potential source of autogenous reinfection. From this, one of two substages may result. Firstly, natural tuberculosis, as occurring in the non-allergic organism, resulting in either: (i) Early generalization of infection such as occurs in primitive adult peoples and in infants, or (ii) later generalization, such as occurs in a terminal miliary tuberculosis, or in the more common chronic tuberculous process. Natural tuberculosis is the result of the spread of the original lesions and this spread may take place early or late. The other possibility is termed by Cummins "modified tuberculosis," which results from exogenous reinfection of hypersensitive tissues, and the characters of which depend on the reactions evoked at the point of invasion. It is the clinical expression of Koch's experiment, known generally as "Koch's phenomenon." It is usually pulmonary, because reinfection occurs through inspired air. As in Koch's phenomenon, there are necrosis and ulceration (cavitation), but no lymph gland involvement occurs, and there is a tendency to healing. Chronic phthisis is Koch's phenomenon. The infected body is very difficult to reinfect, the reason being the retardation of spread in the lymphatics of the tubercle bacilli. This results in localization, the essential feature of modified tuberculosis. That reinfection can lead to disease is only possible, the author maintains, on the theory of accumulation of the tubercle bacilli. The allergic lung retains tubercle bacilli just as the silicotic lung retains dust, the lymph channels being blocked in the one case by inflammation, in the other by fibrosis. This disposes of the objection of insufficient dose. Cummins looks upon the presence of tuberculin sensitivity in late adult life as a proof of reinfection. The earlier lesions would have completely healed. "Modification" he regards as including all the machinery of spontaneous self-immunization against tuberculosis.

Industrial Hygiene under Tropical Conditions.

A. I. H. RUSSELL (*Journal of State Medicine*, September, 1930), in a paper read at the Portsmouth Congress, deals with the working conditions in Indian industries. During the past two decades the advance in economic conditions in the rural population has stimulated the growth of industry. The most important industries, apart from agriculture which employs the vast majority of the population, are cotton spinning and weaving, jute manufacture, railway, tramway and engineering works, rice milling and tea manufacture. The industrial centres are Bombay, Calcutta, Madras, Ahmedabad, Sholapur and Lucknow. In certain areas industrial growth has been so rapid that the local authorities have been unable to keep pace in providing even elementary necessities for health; consequently much squalor is found in these places and there is a high percentage of absenteeism from sickness and other causes. Certain employers have endeavoured to provide an improved diet for their workers at low cost, but much remains to be done to improve the physique of these people. In Bombay the Government undertook a large housing scheme, but the rents have been prohibitive for the class of worker who should benefit. It is probable that much of the recent industrial unrest is due to poor conditions of housing and diet of the workers. Attention has been paid to regulation of child and female labour since 1881, and a considerable number of conventions have been ratified by the Government covering limitation of hours of work, unemployment, night work by young people, weekly rest day, workmen's compensation *et cetera*. Much statistical research has been accomplished by labour bureaux during the last decade, especially regarding the standards and cost of living, and a growing interest is evinced by the Government and employers in the subject of general welfare. Industrial medical services and first-aid provisions are now widespread in the various industries. In certain cases these medical services are extended free of charge to the people living in the neighbourhood. Considerable sums have been expended by some managements in combating epidemic diseases. Other industrial concerns have opened day and night schools to educate the children and workers, and in some cases crèches are provided for the children of female workers. In 1921 the Government instituted an investigation into the atmospheric conditions in the cotton industry in Bombay. The recommendations made as a result of this inquiry have been widely applied with beneficial effect. Unfortunately the evolution of industrial health control by legislation has not kept pace with industrial developments, but increased attention is being paid to this subject. Occupational diseases, however, are rarely seen, and there is no evidence of a higher mortality from respiratory diseases in industry than among the general population. Epidemic diseases and diseases from malnutrition exact a heavy toll.

Resistance to Pathogenic Pneumococci.

O. H. ROBERTSON AND M. A. CORNWELL (*The Journal of Experimental Medicine*, August, 1930) have made a study of the resistance of normal human beings to recently isolated strains of pathogenic pneumococci. While human beings as a group manifested well marked pneumococcus-destroying power in their blood for all the types of organisms studied, individuals exhibited wide variations in their reactions against the different types. These ranged from a definite killing effect for one type of pneumococcus to none or slight effect against another. While reactions against different strains within the type often varied considerably, this difference was less on the whole than that between the types. In the light of previous animal experiments the authors interpret these findings as indicating that human beings in general possess a considerable degree of natural immunity to all types of pneumococci, but that individuals may be relatively susceptible to one or more types and at the same time resistant to others; further, pathogenic strains of pneumococci vary much in their virulence for man.

Special Articles on Diagnosis.

(Contributed by Request.)

XXVII.

MALARIA.

MALARIA appears in such a variety of guises that it would be folly to attempt to discuss its diagnosis here in detail; in this paper, therefore, consideration is given mainly to the commoner features of the disease as it is likely to occur in general practice in Australia. No attempt is made to differentiate between subtertian, tertian and quartan fevers; if the medical practitioner recognizes that the condition is due to malaria he is doing well enough as a rule; the treatment of all three is the same in its essentials. The few remarks contained herein are intended for the general practitioner and not for the malarial expert who, of course, knows far more about the diagnosis of malaria than can be condensed into a small article such as this.

Prodromata.

As a rule, for a few hours or perhaps a day or so prior to the onset of the malarial paroxysm there is a feeling of fatigue, the limbs feel heavy and there is a sense of vague discomfort as though a day of hard unusual work had just been completed; there is some loss of appetite and slight breathlessness. Most old residents of the tropics know immediately they are in for a "dose of fever." On the other hand, these prodromata may be entirely absent.

The Malarial Paroxysm.

The malarial paroxysm is said to occur most frequently between the hours of midnight and midday, but it may occur at any hour. The point may be of some value, however, when the question arises of differentiation from fevers due to other causes.

The paroxysm consists typically of three stages: the cold stage, the hot stage and the sweating stage. It has a total duration of some six to twelve hours.

The Cold Stage.

There is almost invariably a cold stage of greater or less severity. There may be merely a slight shiver and a feeling of coldness which is readily overcome by the addition of an extra outer garment, or there may be a definite rigor. During the rigor the patient shivers violently and his teeth chatter; all the clothes he can wrap round him and all the blankets he can pile on his shaking body fail to warm him. His skin has a bluish tinge and may present the appearance of *cutis anserina*. He may vomit, but often does not feel very sick. The body temperature is already raised above normal. The cold stage varies in duration from a few minutes to an hour or so. Children sometimes become convulsed in this stage; malaria must always be thought of when a child who has recently resided in the tropics becomes stricken with a convulsive seizure.

The Hot Stage.

Gradually the feeling of cold becomes replaced by a feeling of warmth. The patient becomes hotter and hotter until at last he feels as though his body is being burnt. There is usually pronounced thirst. The slighest movement may be sufficient to cause vomiting, or vomiting may be absent. The skin is burning and dry to the touch, the tongue is dry and coated, the temperature may be anything from 38·9° C. (102° F.) to 40·5° C. (105° F.) or 41·1° C. (106° F.) or higher; there may be delirium. After a variable period of two, three or four hours, the skin of the forehead becomes moist to the touch and the sweating stage commences.

The Sweating Stage.

Beads of sweat appear on the face and neck and sweat commences to trickle down on to the pillow; in a short time sweat streams along every wrinkle and fold on the surface of the body; the hair becomes saturated, garments and bedclothes become soaked. Patients proudly relate how their sweat found its way through their beds to trickle into pools upon the floor. During this stage the headache and pains vanish, the vomiting ceases and the patient lies, more or less, in comfort; in fact the onset of the sweating stage is received by the patient often with a feeling of actual pleasure. The fever rapidly subsides and the patient may fall asleep, or may rise, feeling rather "washed out," and proceed about his ordinary duties.

The Interval of Apyrexia.

Following a paroxysm the temperature remains below normal for a period varying from thirty-six to sixty-six hours. During the early part of this period there is frequently some "looseness of the bowels." The patient may feel perfectly well or may be languid and generally not "up to the mark." An herpetic eruption on the lips is common during this stage.

The Spleen.

The spleen enlarges during each paroxysm and there are usually some pain and tenderness in the left hypochondrium both during the paroxysm and during the apyrexial interval. Owing to recurrent attacks the spleen may become permanently enlarged. It is no great rarity, when examining an old resident of the tropics, to feel the lower border of the spleen some 7·5 centimetres (three inches) below the costal margin. Occasionally the organ becomes enormously enlarged so that its lower border reaches a level below the iliac crest; such great enlargement is not necessarily permanent.

The Blood.

Examination of the blood is essential in the diagnosis of malaria, but it is a procedure which is not easily mastered. Unless you are especially skilled in the examination of the blood you had far better hand the job over to someone who is accustomed to that type of work. The possible errors in staining and in interpreting the appearances of a blood film after it has been stained are almost without number. The actual appearance of the parasite itself varies greatly. Most medical practitioners are familiar with the ordinary "ring" form of the trophozoite, but even this can be simulated by deposit of stain, yeasts, blood platelets *et cetera*, and the "ring" form is not always seen in the blood of a patient suffering from malaria. If careful search fails to reveal the presence of the malarial parasite the possibility of malaria must not be immediately ruled out if the clinical signs are suggestive. During the latter part of its intracorporeal cycle, that is, just before the rigor, the parasite of malignant malaria is commonly absent from the peripheral blood, though occasional parasites can usually be found, as they do not all mature at the same time. The ingestion of quinine has an immediate influence on the numbers of parasites in the peripheral blood. After quite a small dose of quinine has been administered it may be impossible to find the parasites in a blood film.

Malarial blood has the appearances of secondary anæmia; there are usually poikilocytosis, anisocytosis and basophile stippling or diffuse polychromasia. Schüffner's dots or Maurer's dots may be seen in the red cells. There is usually a leucopenia with an increase in the proportion of mononuclear cells.

The Quinine Test.

Of course, quinine should be administered immediately the diagnosis is made if the symptoms are at all urgent. It should be given also if there is doubt as to the diagnosis. If the condition is due to malaria the administration of quinine in doses of 1·2 to 1·8 grammes (20 to 30 grains) a day will result in a subsidence of fever in two or three days; if the fever does not subside, either it is due to some other cause or there is some factor in addition to malaria. This may appear to savour of empiricism; perhaps it does, but, when doubt exists, it is much safer to give quinine than to withhold it. It is important, however, to bear in mind what has already been said

regarding the influence of quinine on the numbers of parasites in the peripheral blood.

When is a Paroxysm Likely?

Fatigue is perhaps the most potent factor in "stirring up" a malarial paroxysm. Women during labour and the puerperium are especially liable to attacks. Apart from the discomfort it gives the patient and its danger to her milk supply, a rigor coupled with a rise of temperature to 39·4° C. (103° F.) is a great shock to the nervous system of the obstetrician himself. For this reason the wise obstetrician administers a little quinine to his patient from a malarious country.

During the course of any illness of a malarious subject, malaria is apt to make its appearance. If it be anticipated, its diagnosis will be all the easier.

Some Difficulties.

If malaria always followed such a cut and dried programme as "prodromata, rigor, hot stage, sweating stage and regular apyrexial interval," its diagnosis would present little difficulty, but, alas! such a sequence of events is all too rarely observed. Malignant malaria or subtertian, especially, is the unruly child who laughs at our fondly cherished notions of tertian agues and their accompaniments. The fever of malignant malaria is very apt to persist for as long a period as twenty-four hours or longer, it may be remittent in type rather than intermittent, and its exacerbations may occur at intervals varying from thirty-six hours to forty-eight hours. A quotidian paroxysm due to a double infection may occur, but this is rarely observed save in malarious countries.

Some Types.

There is a clinical type of malaria which is often designated "low fever." The temperature rarely rises above 37·2° C. (99·0° F.), but the subjective symptoms are often distinctly unpleasant. The patient is able to go about his duties, but he is unhappy. He is somewhat breathless on exertion, always feels tired and he has a pain in his left hypochondrium when he takes a deep breath. There is some facial pallor and an icteric tinge to the skin. The spleen may or may not be palpable and malaria parasites may be very scanty in the blood. Again his sole complaint may be that every other day he feels a "bit off colour" or has a headache or feels "dopey" and has no appetite.

A type known as the "bilious remittent" is characterized by bilious vomiting and a saffron tint in the skin and scleræ due to blood destruction.

The so-called cerebral malaria is fortunately rare. It is as a rule rapidly fatal. Sometimes it is mistaken for heat stroke; there may be hyperpyrexia, delirium and coma. Symptoms of cerebral irritation are sometimes seen. Amblyopia sometimes occurs; it may be due either to cerebral malaria or to quinine. If malarial, it usually clears up quickly; if due to quinine, it is more likely to be persistent. Cerebral malaria may give rise to a variety of manifestations, from a convulsive seizure to acute dementia. The native who runs amok is sometimes a victim of cerebral malaria.

A choleraic form of malaria is described; fortunately it is rare. Not so uncommon, however, is the dysenteric type. The true nature of this condition might easily be overlooked, especially when it occurs outside an endemic area.

Malarial Cachexia.

Chronic malaria results eventually in the condition known as malarial cachexia. This is characterized by icterus, emaciation, great splenic enlargement, secondary anæmia, debility and all sorts of recurrent symptoms; sometimes the liver is appreciably enlarged as well. I remember seeing in Rabual one young white man who had been born and had lived all his life in a highly malarious environment. He was obviously very anæmic; the lower margin of his spleen was in the pelvis and its medial border could be felt just to the left of the mid-line; his liver was greatly enlarged and his abdomen was of the pot-bellied type; examination of his blood revealed appearances very suggestive of Banti's disease; no malarial parasites were observed. He refused hospital treatment and went off again to his home in the bush. I next saw him at the end of a period of about six months; he then looked well; his spleen was palpable, but was not greatly enlarged; his liver appeared to be normal in size; beyond a mild degree of secondary anæmia there was nothing abnormal detected at the examination of his blood. There can be little doubt that this man had been suffering from malarial cachexia.

Differential Diagnosis.

Always suspect malaria in a patient from a malarious country, whatever his subjective symptoms may be. It seems needless to remark on such an obvious fact that a diagnosis of malaria does not exclude other disease, but the point is frequently overlooked.

Infective and Other Conditions.

There are numerous infective conditions which may simulate malaria. One man, who eventually came under my care, took quinine in big daily doses for some weeks without any effect on his fever, which he took to be malarial, but which turned out to be due to pyelitis.

Dengue fever may be distinguished from malaria by the extreme swiftness of onset (though this is by no means invariable), the severity of the pains, especially the backache, the continuous fever, the skin eruption and the absence of tenderness or enlargement of the spleen.

Influenza is usually associated with some disorder of the respiratory passages, but may closely simulate malaria.

Abscess of the liver has been frequently mistaken for malaria. Profuse sweats are the rule when the abscess has formed. There is a history of one or more attacks of dysentery, there are pain and tenderness below or above the right costal margin, pain under the right scapula, hepatic enlargement and, perhaps, a mass in the right hypochondrium. X ray examination may reveal a humping of the right lobe of the liver. There is a condition of polymorphonuclear leucocytosis. Finally, cysts or vegetative forms of *Entamœba histolytica* may be found in the stools.

The individual affected with active pulmonary tuberculosis often imagines that his fever and sweating are due to malaria; his views should not be accepted, but his chest should be investigated.

When malaria coexists with some other febrile disease the temperature sometimes tends to follow a course set by the plasmodium. In rare instances the temperature chart may present such an extraordinary appearance that the true diagnosis is missed. A Malay patient had suffered from fever for some days when I saw him; his temperature rose daily to 39·4° C. or 40° C. (103° F. or 104° F.) or thereabouts and fell with profuse diaphoresis. There was no doubt about the diagnosis of malaria, and, as there were delirium and signs of cerebral irritation, quinine was administered intravenously. The *post mortem* examination revealed a huge area of pneumonic consolidation.

Pain associated with malaria fever is especially apt to be concentrated in the site of an old wound or injury, in an arthritic joint or other affected area. Such pain may sometimes be very acute and may be the only symptom. The danger lies in having eyes only for the local condition.

Acute Abdominal Disease.

Malignant malaria sometimes simulates acute disease of the abdomen. In New Guinea I have seen at least one innocent and quite well behaved appendix removed when the real culprit was the *Plasmodium falciparum*; on several other occasions I have observed a condition suspiciously like acute appendicitis, which was found to be a malarial manifestation. However, the danger of overlooking an acute appendicitis should not be forgotten; a man will never miss his innocent appendix when it reposes in a bottle on the shelf; an acutely inflamed appendix is no use to him at any time.

In Conclusion.

The patient who tells you he is suffering from malaria has probably had a good deal of past experience and his

diagnosis is probably correct, but do not accept his word unreservedly. Have his blood examined. Remember that, whatever his symptoms and however obvious the diagnosis may appear on clinical grounds, a correct and final diagnosis can only be made by examination of the blood.

W. L. CALOV, M.B., Ch.M.,

Honorary Assistant Physician to Out-patients, Royal South Sydney Hospital; Honorary Physician to the National Association for the Prevention and Cure of Consumption.

British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION AND OF THE MEDICAL SOCIETY OF VICTORIA was held at the Medical Society Hall, East Melbourne, on December 3, 1930, DR. R. G. MCPHEE, the President, in the chair.

ELECTION OF OFFICE-BEARERS AND MEMBERS OF COUNCIL.

The following were elected office-bearers for the ensuing year:

President: Dr. Victor Hurley.

Vice-Presidents: Dr. B. M. Sutherland, Dr. W. G. D. Upjohn.

Chairman of Council: Dr. J. Newman Morris.

Honorary Secretary: Dr. J. P. Major.

Honorary Treasurer: Dr. C. H. Mollison.

Honorary Librarian: Dr. W. G. D. Upjohn.

The President declared that the following had been elected members of the Council by the Subdivisions: Dr. J. R. Bell, Dr. F. J. Bonnin, Dr. W. F. Brownell, Dr. J. A. Cahill, Dr. S. C. Fitzpatrick, Dr. J. W. Florance, Dr. W. H. Godby, Dr. G. H. Guthridge, Dr. G. J. Ley, Dr. F. E. McAree, Dr. R. G. McPhee, Dr. D. C. Pigdon, Dr. W. A. Spring, Dr. Walter Summons, Dr. A. R. Thorne, Dr. W. G. D. Upjohn, Dr. Gerald Weigall, Dr. J. F. Wilkinson.

The President also announced that Dr. R. H. Fetherston, Dr. Frank L. Davies, Dr. C. H. Mollison and Dr. J. Newman Morris were the *ex officio* members of the Council.

The President announced that the following had been elected by the general body of members and members of the Council: Dr. A. V. M. Anderson, Dr. H. Cecil Colville, Dr. John Dale, Dr. A. P. Derham, Dr. D. M. Embelton, Dr. W. A. Hailes, Dr. Victor Hurley, Dr. W. W. S. Johnston, Dr. L. S. Latham, Dr. J. P. Major, Dr. D. Rosenberg, Dr. H. Douglas Stephens, Dr. B. Milne Sutherland, Dr. B. T. Zwar.

The Council had coopted Dr. R. M. Downes, Dr. Allen Robertson, Professor R. Marshall Allan.

The representative of the Victorian Women's Association was Dr. Constance Ellis.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council, having been circulated, was taken as read and adopted.

The Council of the Branch and the Committee of the Society present the seventy-fifth annual report of the Society and the fifty-first of the Branch.

Election.

At the annual meeting, held last December, the following members of the Council and of the Committee were elected: Dr. A. V. M. Anderson, Sir Stanley Argyle, Dr. John Dale, Dr. A. P. Derham, Dr. R. M. Downes, Dr. D. M. Embelton, Dr. Allan Hailes, Dr. Victor Hurley, Dr. W. W. S. Johnston, Dr. L. S. Latham, Dr. J. P. Major, Dr. Allen Robertson, Dr. H. Douglas Stephens, Dr. B. T. Zwar.

The following were elected to represent the Subdivisions: Dr. F. J. Bonnin, Dr. J. A. Cahill, Dr. S. C. Fitzpatrick, Dr. J. W. Florance, Dr. W. H. Godby, Dr. G. H. Guthridge, Dr. J. W. Dunbar Hooper, Dr. Morris Jacobs, Dr. G. J. Ley, Dr. F. E. McAree, Dr. Ian McNeil, Dr. R. G. McPhee, Dr. D. C. Pigdon, Dr. J. H. Pestell, Dr. Walter Summons, Dr. W. G. Dismore Upjohn, Dr. Gerald Weigall, Dr. J. F. Wilkinson.

These members, together with the Trustees of the Medical Society of Victoria (Dr. C. H. Mollison, Dr. Frank L. Davies, Dr. R. H. Fetherston and Dr. J. Newman Morris) and three additional coopted members (Dr. H. C. Colville, Dr. D. Rosenberg and Dr. B. M. Sutherland), constituted the Council for 1930. Dr. Constance Ellis, in July, was appointed to represent the Victorian Medical Women's Society in accordance with an amendment of the Rules.

The new Council elected the following office-bearers: President, Dr. R. G. McPhee; Vice-Presidents, Dr. Victor Hurley and Dr. B. M. Sutherland; Honorary Secretary, Dr. Frank L. Davies; Honorary Treasurer, Dr. C. H. Mollison; Honorary Librarian, Dr. W. G. D. Upjohn; and Chairman of Council, Dr. J. Newman Morris.

Council Meetings.

There were twenty-one ordinary and three special meetings of the Council, at which the attendances were as follows:

Hurley, Victor	24	Pigdon, D. C.	18
Wilkinson, J. F.	24	Upjohn, W. G. D.	18
Davies, F. L.	23	Weigall, Gerald	18
Cahill, J. A.	23	Hailes, Allan	17
Major, J. P.	23	Johnston, W. W. S.[2]	16
McPhee, R. G.	23	McAree, F. E.[1]	15
Rosenberg, D.	23	Dale, John	14
Morris, J. Newman[1]	22	Pestell, J. H.	12
Sutherland, B. M.	22	Ellis, Constance[3]	8
Downes, R. M.	21	Robertson, Allen[1]	7
Guthridge, G. H.	21	McNeil, Ian	6
Mollison, C. H.	21	Anderson, A. V. M.[2]	6
Summons, Walter	21	Fetherston, R. H.	2
Zwar, B. T.	21	Argyle, Sir Stanley	1
Colville, H. C.	19	Fitzpatrick, S. C.	1
Embelton, D. M.	19	Bonnin, F. J.	0
Latham, L. S.	18	Florance, J. W.	0
Stephens, H. Douglas	18	Godby, W. H.	0
Derham, A. P.	18	Jacobs, Morris	0
Hooper, J. W. Dunbar	18	Ley, G. J.	0

The average attendance at each meeting of the Council was twenty-four.

Council Subcommittees.

The following Council Subcommittees were appointed by the Council. The first named acts as convener of the Subcommittee, and the President, Vice-Presidents, Chairman of Council, Honorary Treasurer and Honorary Secretary are *ex officio* members of all subcommittees. The quorum for each subcommittee was fixed at three, except that for the Ethics Subcommittee, which was four, determined by its own procedure:

Organization: Dr. Allen Robertson (and in his absence Dr. B. M. Sutherland), Dr. F. L. Davies, Dr. A. P. Derham, Dr. D. M. Embelton, Dr. D. Rosenberg, Dr. B. T. Zwar and all representatives of subdivisions.

Ethics: Dr. J. F. Wilkinson, Dr. A. V. M. Anderson, Dr. Frank L. Davies, Dr. R. M. Downes, Dr. J. W. Dunbar Hooper, Dr. L. S. Latham, Dr. J. P. Major and Dr. W. G. D. Upjohn.

Medico-Political: Dr. D. Rosenberg, Dr. J. A. Cahill, Dr. H. C. Colville, Dr. John Dale, Dr. D. M. Embelton, Dr. R. H. Fetherston, Dr. G. H. Guthridge, Dr. D. C. Pigdon, Dr. Gerald Weigall and Dr. J. F. Wilkinson.

House: Dr. R. H. Fetherston.

Science: Dr. Allan Hailes, Dr. John Dale, Dr. R. M. Downes, Dr. Constance Ellis, Dr. Robt. Fowler, Dr. K. Hiller, Dr. W. W. S. Johnston, Dr. C. H. Kellaway, Dr. Fay Maclure, Dr. W. J. Penfold,

[1] Absent from the State.
[2] Absent through illness.
[3] Elected during the year.

Dr. C. Gordon Shaw, Dr. H. Douglas Stephens, Dr. W. G. D. Upjohn, Dr. J. F. Wilkinson and Dr. B. T. Zwar.

Library: Dr. W. G. D. Upjohn and Dr. R. H. Fetherston.

Cancer and Public Questions: Dr. Allan Hailes, Sir Stanley Argyle, Dr. John Dale, Dr. A. P. Derham, Dr. R. H. Fetherston, Dr. C. H. Kellaway, Dr. L. S. Latham, Dr. Fay Maclure, Professor P. MacCallum, Dr. D. Rosenberg, Dr. C. Gordon Shaw, Dr. B. T. Zwar, with power to coopt.

Hospital Subcommittee: The Advisory Committee to the Charities Board, and Dr. W. R. Boyd, Dr. A. E. Brown, Dr. H. C. Colville, Dr. J. Dale, Dr. A. P. Derham, Dr. Constance Ellis, Dr. D. M. Embelton, Dr. R. H. Fetherston, Dr. M. Mushin, Dr. E. Cooper, Dr. Ian Jeffreys Wood and Sir Richard Stawell.

Special Subcommittees.

Embley Memorial Subcommittee: Dr. B. T. Zwar, Mr. C. K. Mitchell, Dr. C. Cunningham, Dr. Davies, Dr. F. W. Green, Dr. R. W. Hornabrook, Dr. B. Kilvington, Dr. G. L. Lillies, Dr. Mollison, Dr. Morris, Professor Osborne and Dr. Sutherland.

Early Medical History Committee: Dr. Felix Meyer, Dr. G. T. Howard, Dr. C. Bage, Dr. A. Black, Dr. W. R. Boyd, Dr. Fetherston, Dr. Hooper, Dr. A. L. Kenny and Dr. A. Jeffreys Wood.

Intermediate Scale of Fees Subcommittee: Dr. Colville, Dr. Embelton, Dr. Hurley and Dr. Sutherland.

Agenda Paper Committee to Representative Body: Dr. Wilkinson, Dr. A. E. Brown, Dr. Colville, Dr. Davies, Dr. Embelton, Dr. Hurley, Dr. Latham, Dr. McPhee, Dr. Morris, Dr. Rosenberg and Dr. Zwar.

Representative Body Memoranda Committee: Dr. Embelton, Dr. Brown, Dr. Colville, Dr. Hurley, Dr. McPhee and Dr. Morris.

Subcommittee to Consider Service of Naval Medical Officers: Dr. Hooper, Dr. Downes and Dr. Hurley.

Wonthaggi Subcommittee: Dr. Wilkinson, Dr. Davies, Dr. Embelton, Dr. Morris, Dr. Robertson, Dr. Sutherland and Dr. Zwar.

Appointments.

The following appointments were made:

Federal Committee: Dr. Davies and Dr. Morris.

Bush Nursing Association: Dr. Derham and Dr. Sutherland.

Free Kindergarten Union: Dr. W. Kent Hughes.

The Representative Body: Representative: Dr. Allen Robertson.

Annual Meeting, Winnipeg: Representatives: Dr. John Tait and Dr. Maurice Lynch.

Executive Council, Victorian Baby Health Centres: Dr. Downes.

Big Brother Movement: Dr. Hughes.

Executive, Melbourne University Association: Dr. Stephens.

Health Association of Australia (Victorian Branch): Dr. Dale, Dr. C. H. Kellaway and Dr. Walter Summons.

Mental Hygiene Association in Victoria: Dr. Dale and Dr. Derham.

Masseurs' Registration Board of Victoria: Dr. Downes and Dr. W. W. S. Johnston were nominated for appointment.

Nurses' Board: Dr. R. W. Chambers was nominated for appointment.

Melbourne Permanent Committee for Post-Graduate Work: Dr. Anderson, Dr. Hailes and Dr. Hooper.

Victorian Institute of Almoners and Lord Mayor's Fund: Dr. Morris.

Standing Appointments.

The Advisory Committee to the Charities Board: Nominated by the Council: Dr. Anderson, Dr. Hurley, Dr. Latham, Dr. Morris, Dr. McPhee, Dr. Wilkinson and Dr. Zwar.

Central Council, British Medical Association (1928-1930): Dr. T. P. Dunhill.

Victorian Correspondent, "The British Medical Journal": Dr. Leslie E. Hurley.

British Medical Insurance Company of Victoria: Secretary, Mr. H. M. Brindley; Directors, Dr. Mollison, Dr. Hughes, Dr. Morris, Dr. Fetherston and Mr. Brunel Kay.

British Medical Agency of Victoria Proprietary, Limited: Managing Director, Mr. W. Ramsay; Directors, Dr. Mollison and Dr. Fetherston.

Board of Australian Inland Missions: Dr. Hooper.

Trustees of the Medical Society of Victoria (appointed by Governor-in-Council): Dr. Mollison, Dr. Davies, Dr. Fetherston and Dr. Morris.

Honorary Secretary.

Dr. Frank Davies resigned the position of Honorary Secretary of the Branch and the Council appointed Dr. J. P. Major in his stead. The following resolution was placed on the minutes:

> This Council regrets the resignation of Dr. Frank L. Davies as Secretary of the Branch and places on record its appreciation of the very valuable services rendered by him to the Branch during the ten years he has acted as Honorary Secretary. The Council recognizes the great ability and tact shown by Dr. Davies in the performance of his duties. It is especially appreciative of the personal sacrifice of time and energy which he has made in his constant endeavour to further the best interests of the Branch and of his fellow members individually. The Council trusts that he will find it possible to continue to render the valuable service of which he is so capable.

Membership Roll.

The number of members on the roll is 1,381. During the year 72 names were added to the membership roll (37 by election, 11 who paid arrears, and 24 by transfer from other States). On the other hand, 69 were removed, (8 by death, 5 by resignation, 37 by transfer to other States, and 19 who allowed their subscriptions to fall two years in arrears).

We have to record with regret the death of the following members: Dr. W. I. Boyes, Dr. J. Talbot Brett, Dr. F. J. Drake, Dr. N. B. Gandevia, Dr. A. Q. Henderson, Dr. F. W. W. Morton, Dr. R. G. Naylor, Dr. A. Norris Wilkinson.

Associates.

A number of members of the Branch who had retired from active practice, wished to resign. The Council, desiring to retain them in association with the Branch activities, made a further classification of Associates. These medical practitioners will receive all notices of meetings, with the right of attendance thereat, but will have no other privileges. Dr. J. V. McCreery was made the first Associate. The following is a complete list: Dr. J. F. Anderson, Dr. W. J. Cameron, Dr. Wm. Davies, Dr. Jas. Eadie, Dr. J. McI. Eadie, Dr. G. E. Garde, Dr. C. A. Griffith, Dr. J. W. Harbison, Dr. W. T. Harse, Dr. Horace F. Hayes, Dr. F. D. Hayman, Dr. C. Crozier Magee, Dr. A. W. Marwood, Dr. W. F. Miller, Dr. J. T. Mitchell, Dr. J. V. McCreery, Dr. F. J. Owen, Dr. F. J. Pacey, Dr. F. B. Reid, Dr. P. J. Rockett, Dr. F. A. Sweetnam, Dr. D. Trumpy, Dr. T. R. H. Willis.

Ethics Subcommittee.

There have been 19 meetings of this Committee and the matter of greatest importance dealt with was the "division of fees." After a large amount of consideration, both by the Subcommittee and the Council, a circular was issued to the members in December last, giving a definition and offering suggestions for the conduct of post-operative treatment and for itemizing of accounts. The circular met with considerable opposition from a large body of general practitioners, who stated that the policy laid down interfered with team work and forbade general practitioners carrying out after-treatment. The Council sought information

from this body as to the way in which team work was interfered with, but no response was forthcoming. However, the Council reconsidered the whole matter and redefined "division of fees," and issued a circular. This was considered at a special meeting of the Branch on November 6, and was adopted unanimously as a "guiding principle for the conduct of our members." The meeting also agreed to the addition of the following two clauses of Principles of Ethics, further defining "division of fees":

1. It is unethical for the surgeon to tender to, or for the practitioner to accept from the surgeon, an assistant's or an anæsthetist's fee which is in excess of the usual fees for such services.

2. It is unethical for the surgeon to tender, or for the practitioner to accept from the surgeon, a fee for the after-treatment of a surgical operation case which is in excess of the usual fee for the services rendered, or, in any case, without the patient being aware of such fee being received.

To assist in carrying out these principles a composite account should state:

(*a*) Anæsthetist's fee.
(*b*) Surgeon's fee.
(*c*) Assistant's fee.
(*d*) After-treatment.

And, furthermore, it is desirable that, whenever possible, separate receipts should be given by each person involved in the attendance.

In the last Annual Report it was stated that a medical practitioner would be justified in supplying information with regard to a patient who was an inmate of the Receiving House, Royal Park, if permission were obtained from the Master in Lunacy. The Crown Solicitor has since stated that there is no authority who can give such permission.

It was ruled that any information desired by an insurance company with regard to a patient in a public hospital should be obtained from the medical superintendent or the resident medical officer in charge of the case, and such information should be paid for, and must be given only with the permission of the honorary; the honorary could refuse to give the information unless he were paid a fee. In every case the patient's consent must be obtained before any information is supplied. This matter is still receiving consideration from the Subcommittee, which is endeavouring to draft a standard procedure.

In regard to contributions to the press on non-medical subjects, such as literature, science, pictorial photography *et cetera*, a medical practitioner is entitled to use the title of "Dr." just as an ordinary citizen may use any of his university qualifications.

The editor of a leading daily journal was informed that he could obtain an authoritative statement on any medical question from an approved medical practitioner, whose name would be supplied by a member of the Executive. This contribution would have due weight by being subscribed "British Medical Association."

The question as to who should be responsible for the assistant or anæsthetist's fee at an operation, whether the patient or the surgeon, was referred to the solicitor to the Association, whose opinion is still under consideration of this Council and of the Home Association, which was asked for any ruling of the Council or of the Representative Meeting in this matter. It was found that there was no decision bearing on the matter, and the question has been referred to the Central Ethical Committee in London for its opinion.

The Council disapproved of dispensing in connexion with a city or suburban practice.

A reply was received from the College of Surgeons of Australasia that its policy with regard to the education of the public was as originally set forth in its letter to the Council on April 12, 1928: "The first step in the direction of the education of the public would naturally be the indirect education of the public through the medical profession. If this were successful, any communication to the public would be unnecessary." The Council has now been officially informed that the College of Surgeons has been incorporated, and that under the Articles of Association this clause has been withdrawn, as well as the clause "to safeguard the welfare of the community by indicating that its Fellows have attained a high standard of surgical competency and are of high character."

Members were informed that the dispute with the Hobart Public Hospital had been settled and that members of the Association may accept appointments as medical officers.

A medical man should engage an unregistered midwife only in cases of emergency; but a medical man can attend a case where an unregistered midwife is engaged.

There is nothing unethical in a medical practitioner having his name plate on a chemist's or dentist's premises, provided he regularly visits these premises to carry on his practice.

The question of placing medical qualifications or a specialty on name-plates is still under consideration of the Committee.

Organization Subcommittee.

Seventeen meetings of this Committee were held. A short summary of the Lodge Agreement was drawn up and printed on gummed slips for insertion in the lodge prescription book. It was found that lodge patients knew little, if anything, of the conditions under which they were receiving medical attention. A supply of these gummed slips is now available at cost price.

A new Uniform Lodge Agreement has received the approval of the Council and is now in the hands of the solicitor to be drafted in its final form. This agreement will be submitted to the Branch for confirmation when the time is opportune.

An arrangement was made by the Federal Committee in 1923, and afterwards adopted by the Branch, that widows of deceased soldiers should be treated at lodge rates. Members are informed that this arrangement holds only as regards widows existing at the date of the arrangement. A list of these is held by the Department, and is not added to by the subsequent deaths of returned soldiers.

The Council approved of the proposal of one lodge that it should make itself responsible for the entrance examination fee, which would be paid with the quarterly capitation fee.

A lodge secretary was informed that there is no provision in the common form of agreement whereby a lodge member is entitled to the services of another doctor in the absence of his lodge doctor.

A visitor to the country on holiday has a right to transfer to the local doctor's lodge list, provided such transfer is made in the correct way. The doctor has the right to refuse to accept a member of the lodge on his list, but it is not expected that such right will be exercised arbitrarily.

A lodge secretary has no right to deduct from the medical officer's cheque a fee which the latter had charged a member of the lodge whose name had not been supplied to the medical officer.

Reduction of fractures and dislocations cannot be charged for, but the lodge medical officer may charge for the anæsthetic, if given.

A lodge medical officer is entitled to charge for surgical treatment of a carbuncle under a local anæsthetic.

A lodge medical officer who had been engaged for a confinement, which was later conducted by another medical practitioner, is not entitled to charge for prenatal treatment.

No clause in the present lodge agreement refers to the question of X ray diagnosis or treatment, but fees are usually charged for such services.

In general practice the ruling maximum fee for an assurance certificate is not larger than one guinea, unless some arrangement has been made with the company for a higher fee.

A health officer in a country municipality resigned his appointment because he was refused the salary, £50, recommended by the Health Commission. His colleagues in the district agreed, at the Council's request, not to apply for the position if it was advertised. The specified salary was paid.

A newspaper report stated that the health officer of a country shire was to be asked to resign in order to relieve the shire of its financial disabilities. He was advised that it would be better not to resign, but to perform his duties without salary.

The Council was instrumental in obtaining for one health officer an increase in his salary from £50 to £80 *per annum*.

Where the health officer happened to be the only medical practitioner in the town, a difficulty arose as to where his duty began and ended as health officer in the case of diphtheria. He had attended and given prophylactic treatment to contacts. The case was submitted for opinion to the Health Commission, which pointed out that under the regulations a medical officer was bound to take one swab from each contact in order to be able to give a certificate of freedom from infection, which was necessary before a child could return to school. Such service should be free; attendance on other occasions would be in his private capacity and should be charged for, and the patient should be so informed beforehand.

On making inquiry from each of the friendly society orders, it was found that in the case of three orders, namely, the Hibernian-Australian Catholic Benefit Society, the Irish National Foresters, and the Manchester Unity Independent Order of Oddfellows, a wife of a member was not entitled to medical benefits until she had been registered by the lodge; failing registration, the wife would be a private patient.

A committee of residents in a country town engaged a medical practitioner under contract for an all-in service, excluding midwifery. It was resolved not to interfere with the agreement at the present time, as it seemed to work well in the particular district, but the Council reserved the right to obtain readjustment at a future date.

The Secretary of the Charities Board had ruled that medical practitioners were allowed to charge for infectious cases in wards of public hospitals where arrangements had been made with the municipality from which the patients came. Later, the State Treasurer had given a direction that the Treasury practice of not allowing the doctors attending such cases to charge fees should be adhered to. The custom had been for practitioners to charge, and the Council resolved to oppose the principle of non-payment if an attempt were made to carry it out.

The Council considers that there is no law to prevent medical practitioners from charging for treatment of infectious diseases in the wards of public hospitals, and still advises members to make such charges.

In regard to the Infectious Diseases Hospital at Fairfield, a separate Act of Parliament governs the practice. A private practitioner may attend a patient only in consultation with the Resident Medical Officer, and he must look to the patient for the consultation fee.

A member was supported in his refusal to give a certificate under the *Workers' Compensation Act* where the company insisted that the employee should pay. The Act provides for the payment of such certificate by the employer or insurance company.

A *résumé* of the *Workers' Compensation Act*, in so far as it affects medical practitioners, has been compiled and has had the approval of the State Accident Insurance Company. Owing to the expense in printing, its publication has been withheld for the present.

A proposition was made by an industrial company for medical attendance upon members of the company at a remuneration of 6d. per head per week. To this the Council would not agree, and suggested the formation of a pool, out of which the doctors would be paid at the rate of 10s. 6d. per visit or consultation.

The Council disapproved of a contract with a group of municipal employees on the ground that the salary of the medical officer averaged per member less than the rate paid in the district by friendly societies to their lodge medical officers, and that there was an absence of any income limit. The Council thought that equal facilities should be offered to all medical practitioners in the district for appointment.

At the request of the Secretary of the Children's Welfare Department, the duties of the medical officers were considered and a number of suggestions were made. A deputation waited on the Chief Secretary, who promised to give the representations of the Council sympathetic consideration.

The fee for a medical witness in a civil action, according to the Scale of Fees passed by the Branch, is two guineas; but this fee should be arranged with the solicitor before going into the witness box. In the Court of Petty Sessions the fee for a medical witness has been reduced from one guinea to 15s., and the Council lately forwarded a protest to the Attorney-General, and still has the matter under consideration. The fees for a medical witness in the Coroner's Court have not been altered.

A medical practitioner is not entitled to a fee for a report asked for by the Coroner; the practitioner could refuse to give the report, but if he were subpœnaed he would have to appear and he would receive a fee as a witness.

Medico-Political Committee.

Dr. J. Bell Ferguson, State Director of Tuberculosis, who attended at one meeting, stated that the notification of all forms of tuberculosis was compulsory. Suspected cases need not be notified, but the services of the Tuberculosis Bureau were at the disposal of practitioners to help in the diagnosis of such cases. A form was used for the collection of information from medical officers of hospitals as to the previous illnesses of the patient. Such inquiry was designed to prevent overlapping of medical services, where the patient had previously been investigated at a hospital. At the request of the Committee the words, "I agree to the above information being provided," and space for the patient's signature have been added to this form.

The Rules of the Branch were amended to provide for the election of representatives of subdivisions being conducted in a way similar to that for the general election of members to the Council.

An amendment of the rule to provide for one member of the Council being nominated by the Victorian Medical Women's Society was passed by the Council and afterwards adopted at a special meeting of the Branch.

The Memorandum and Articles of Association of the proposed Federal Council were considered; amendments were made and approval given in its amended form.

Under the *Medical Practitioners' Act*, 1919, of Tasmania, no medical practitioner can practise, prescribe or administer medicine or give a certificate unless he is registered in Tasmania. The Medical Board has warned *locum tenentes* that they must register either in Launceston or Hobart before commencing their locum tenancy.

It was proposed that the powers of a general or special meeting of the Branch should be transferred to meetings of delegates duly appointed by the divisions. Advice was sought from the Home Association and a reply received. Further communications are taking place with the Parent Body.

A meeting of delegates appointed by Subdivisions of the Victorian Branch met on April 30, when it was unanimously resolved that the medical profession in Victoria should undertake to examine more closely and develop more fully the plan of insurance set out in a memorandum on hospital policy which had been circulated to all members of the Branch. A large amount of money would be required to provide a special secretary for a period of five years and for the help of financial and other experts. Delegates and subdivisional representatives were asked to collect funds by voluntary subscriptions in their own subdivisions.

Each member of the Branch was to be requested to contribute £6 either in one amount or spread over the period of five years. Collections were to be completed and returns finalized by September 30, 1930. Up to November 15, 1930, £1,450 in cash or promissory notes has been received, and definite promises for a further £500 are outstanding. Only 25% of the members of the Association have contributed or promised to contribute. The fund is still open for receipt of donations. It has been decided that the incoming Council should determine what further action will be taken.

Two bills of importance to medical practitioners were introduced into the Legislative Council: (*a*) the Ministry of Health Bill and (*b*) Nurses' Act Amendment Bill. In the former bill it was the wish of the Council that the head of the proposed department should be a qualified medical practitioner, and other amendments in the bill were suggested. A deputation waited on the Chief Secre-

tary, who pointed out that under the bill a medical practitioner might be appointed. In the Nurses' Act Amendment Bill it was considered that the constitution of the Nurses' Board was unsatisfactory. All members of the Legislative Council received a circular setting out the amendments desired by the Council in each bill. The Ministry of Health Bill is being proceeded with, but the Nurses' Act Amendment Bill has been withdrawn with the intention of convening representatives of all parties, who will express their views, and the decision of this conference will be embodied in the new bill.

Two members of the Branch were defendants in an action at law in connexion with lunacy certificates. The jury brought in a verdict for the defendants. The Council expressed its sympathy with them and congratulated them on the result of the trial. Although they had carefully carried out all the requirements of the law, they had been put to great expense in defending the action. A deputation waited on the Chief Secretary and proposed that the *Lunacy Act* should be amended so as to give the medical profession more protection whilst carrying out its duty. The deputation had a sympathetic reception, and the Chief Secretary promised to give the proposal careful consideration.

Science Subcommittee.

The Science Subcommittee arranged the Branch and clinical meetings throughout the year. Nine monthly meetings, three Branch country meetings, three special meetings, seven clinical meetings and six post-graduate lectures were held. The following papers were read:

February—

Professor Marshall Allan: "Obstetrical Experiences Abroad."
Dr. J. Newman Morris: "Surgical Clinics in North America."

March—

The meeting was held at the Thomas Baker, Alice Baker and Eleanor Shaw Research Institute.
Dr. J. A. McLean: "Changes in Blood and Blood-forming Organs in Lead Poisoning."
Dr. J. Fiddes, Dr. K. Stokes and Miss Allason, B.Sc.: "The Action of Electrolytes on the Heart Beat."
Dr. Ewen Downie: "Toxæmia and Insulin Resistance."
Dr. W. J. Penfold and Miss Dorothy Irving, B.Sc.: "Further Studies in the Clinical Biochemistry of the Cerebro-Spinal Fluid."

April—

Dr. A. P. Derham: "Mental Deficiency, with Special Reference to its Relation to Physical Disease, and to the After Results of a Series of Mental Tests."

May—

Symposium on "Feeding and Management of the Normal Infant and Child."
(*a*) "Natural Feeding," Dr. Guy Springthorpe.
(*b*) "Artificial Feeding," Dr. Hilda Kincaid.
(*c*) "Feeding and Management after Weaning," Dr. Stewart Ferguson.

June—

Dr. F. M. Burnet: "Recent Work on Staphylococcal Toxins, with Reference to the Interpretation of the Bundaberg Fatalities."

July—

Dr. J. P. Major: "Some Clinical Aspects of Pernicious Anæmia; Acholuric Jaundice and other Blood Conditions."
Dr. J. McLean: "Blood Cells—Recent Advances in Examination and Interpretation."

September—

Professor Wood Jones: "Some Modern Trends in Anatomy."

October—

Professor Woodruff: "The Vernes' Test as used in the Diagnosis of Syphilis and Tuberculosis."

Special Meeting—

Dr. Thos. Cherry: "The Relation of the White Blood Corpuscles to the Development of Malignancy."

November—

Professor Windeyer: "Diagnosis and Treatment of Some Common Obstetric Abnormalities."

Branch meetings in the country:

March—

Week-end meeting held at Geelong.
Dr. C. H. R. James: "Surgery of the Bile Ducts."
Dr. Mary De Garis: "The Meaning of Maternal Mortality."

May—

Week-end meeting at Bendigo.
Dr. W. J. Long: "Surgical Reminiscences."
Dr. L. S. Kidd: "The Surgery of Access in the Use of Radium in the Pelvis."
Dr. D. W. Neville: "Rheumatoid Arthritis."
Dr. J. J. Searby: "A Recent Epidemic of Scarlet Fever."

October—

Week-end meeting at Mooroopna.
Dr. J. W. Florance: "The Stomach from a Radiological Aspect."
Dr. C. H. Dickson: "Erythrœdema."
Dr. A. L. Bennett: "The Value of Cholecystography in Diagnosis."

In addition to the above, two Special Meetings were held on the same evenings as Monthly Meetings for the purpose of adopting Revised Rules of the Association.

A visit was arranged to the Talbot Epileptic Colony at Clayton.

The following Clinical Meetings were held:

April—At the Austin Hospital.
May—At the Melbourne Hospital.
June—At St. Vincent's Hospital.
July—At the Women's Hospital.
September—At the Alfred Hospital.
October—At the Eye and Ear Hospital.
November—At the Children's Hospital.

A postgraduate course of six lectures and demonstrations was held on infant welfare and child hygiene.

May—

1. "Care of Mother and New-born Baby, including Premature Infant." Dr. Kate Campbell.
2. "Management of Breast Feeding and its Restoration, if Failing." Dr. Guy Springthorpe.
3. "Principles of Artificial Feeding and Weaning of the Normal Infant." Dr. Boyd Graham.

June—

4. "Practice of Artificial Feeding of the Normal Infant." Dr. Vera Scantlebury.
5. "Feeding of Children After Weaning." Dr. A. P. Derham.
6. (*a*) "Hygiene of Childhood." Dr. Constance Ellis. (*b*) "Mental Hygiene." Miss Gutteridge.

Library Subcommittee.

During the year members have continued availing themselves of the facilities provided by the Library to an increasing extent. Since the last report, 903 volumes have been borrowed by city and country members for home study; 115 new volumes were added during the year, and 98 volumes of periodicals have been bound. The journals of the Medical Associations of South Africa and of Canada have been added during the year.

The card catalogue of the library books has been revised and retyped, with consequent improvement in facilities for quick reference.

The Catalogue of Scientific Periodicals in Australian Libraries, drawn up by the Council for Scientific and Industrial Research and issued by the Commonwealth, has proved of great value to many of our members desiring access to literature not contained in our own library. This book can be obtained through the Secretary of the Victorian Branch, British Medical Association. Price 10/-; postage 7d. As no applications have been received from Branches for duplicate periodicals, these are now on offer to the Melbourne Public Library.

Books and periodicals have been presented during the year by Mrs. A. M. Wilkinson, Dr. E. B. Heffernan, Dr. W. R. Groves, Dr. Louis Crivelli, Professor W. Osborne, Dr. David Grant, on behalf of Mr. C. W. Cradwick, and by

the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, to all of whom we express our thanks.

We desire to express our thanks also for publications received from the library of the Surgeon-General of the United States of America, from the Association of American Physicians, Philadelphia, from the Henry Phipps Institute of Pennsylvania, from the University of Pennsylvania, from the Governors of the Society of the New York Hospital, and from the Commonwealth Statistician.

Hospital Subcommittee.

The Hospital Subcommittee met on five occasions. A conference was held with delegates of the Presbyterian Intermediate Hospital Committee, at its request, and various questions in connexion with the establishment of an intermediate hospital on the site of the old Scotch College in East Melbourne, were discussed.

A difficulty has been experienced by country hospitals in obtaining resident medical officers and one hospital suggested that each metropolitan hospital in turn should lend one of its resident medical officers for a few months. The Council suggested that if the country hospitals offered increased salaries and greater facilities for gaining professional experience medical practitioners who had completed their first year in metropolitan hospitals might offer themselves, and that the services of such men would be much more valuable.

The medical superintendents of the metropolitan public hospitals met the Subcommittee in order to consider methods of coordination between medical practitioners and admitting medical officers at public hospitals. Proposals for reducing the number of out-patients at public hospitals were considered. It was suggested that the hospitals should refuse to admit non-urgent cases without certificates from outside practitioners. The Medical Secretary of the Home Association wrote requesting information regarding the difficulties in dealing with the very largely increased number of out-patients at public hospitals and a Subcommittee of three medical superintendents of metropolitan public hospitals was appointed to draw up a reply.

The Radiological Section proposed that the Council should adopt the policy of the Home Association with regard to radiological services to public hospitals. The Subcommittee pointed out that there were outstanding differences in the English and Victorian hospital policies, and the Section was asked to submit proposals suited to local conditions.

Regarding the conditions under which radiological work should be carried out in a country hospital receiving private and intermediate patients as well as charitable cases, the Council ruled that contributing patients in the hospital should pay one-third to three-quarters of the fee laid down in the radiological Scale of Fees; intermediate patients should pay three-fourths of such fees; private patients, *i.e.*, full paying patients, should pay the ordinary fee as set out. The medical practitioner conducting the X ray service should receive two-thirds of the fee paid, and one-third should go to the hospital for the use of the X ray plant.

A scale of maximum intermediate fees was drawn up at the request of the Charities Board, in accordance with the requirements of Regulation 7 relating to community hospitals. Provision was also made for radiological, ear, nose and throat, and for eye intermediate fees. This scale was submitted to the Council, which decided that as a necessary preliminary some indication should be given as to the patients who were to be regarded as intermediate. The Charities Board has been asked for its definition of an "intermediate patient."

In connexion with one large business concern, contributors to the Lord Mayor's Fund had been promised free hospital treatment regardless of the financial status of the contributor. Each hospital committee was informed that the Branch was opposed to any contributory scheme in which the contributors were offered or promised public hospital treatment in return for payment under such a scheme to the hospital. Conferences also took place between representatives of the Lord Mayor's Fund, of the committees of management of the public hospitals and of the Council. It was pointed out to the Board that there was an ever increasing use of public hospitals; that while the population had increased 20% in twenty-five years, the use of public hospitals had increased by more than 100%; also that there had been a change in the type of patients, and that there are misconceptions in the minds of the public that they are paying in full for the services they are receiving; that the proposed contribution of sixpence a week would be inadequate to meet the demands by contributors to the Fund. The Charities Board was informed that the Council had under consideration a scheme of insurance which should provide efficient medical services at a reasonable cost. Later it was resolved that in view of the present financial difficulties in which the public hospitals were placed, the scheme could be put into operation as an emergency method, and the Council would be willing to recommend the members of the Branch to concur in its operations over a period of two years, provided that—

(*a*) The efficiency and interests of the medical service of the community were sufficiently safeguarded; and

(*b*) The working of the scheme be subject to review after such period.

The proposal was dropped.

No objection was raised to a contributory scheme in operation at Mildura, where the contributions conferred no right to medical attendance at the hospital and where the doctors themselves controlled the admission of patients.

At Geelong a contributory scheme is in operation. All contributors who receive medical attention at the public hospital must come within the provisions of the *Charities Act*. No out-patients are treated under the scheme.

A member was informed that the establishment of an intermediate block in a country hospital was in accordance with the regulations issued by the Governor in Council and was also in accord with the policy of the Branch; certain safeguards should be insisted on to prevent abuse; and a scale of fees applicable for intermediate hospitals was now under consideration.

George Adlington Syme, 1859-1929.

The *In Memoriam* Sir George Syme gathering at the Medical Society Hall, East Melbourne, on Sunday, May 12, 1929, impressed members of the medical profession so much that many requests were made to the Council and officers of the Victorian Branch of the British Medical Association that a booklet should be issued containing the various obituary notices and appreciations of George Adlington Syme. The Council readily undertook the task as a labour of love, feeling that nothing but good could result from the contemplation by members of the medical profession of the constant devotion of George Adlington Syme to all that which promoted the welfare and honour of the profession and its members.

Copies of this booklet were sent to those members of the Association who desired to have them. There are still a number available for any members of the Association who may apply to the Secretary of the Branch. Specially bound copies were donated to Lady Syme, the Branches in each State, to the Medical School Library, the Editor of THE MEDICAL JOURNAL OF AUSTRALIA, the Federal Committee, to the College of Surgeons of Australasia, to the Public Library of Victoria and to the Home Association.

Australasian Medical Publishing Company, Limited.

The Chairman of Directors and the Secretary of the Company were congratulated on the financial success of the undertaking. A large profit had been made under the new management and a payment of interest on the debentures of the Company was made.

Federal Committee.

The Federal Committee met in Sydney on October 2. For the report of its proceedings see THE MEDICAL JOURNAL OF AUSTRALIA, November 22, 1930.

The Federal Committee was requested to consider a revision of the financial arrangements with the Home Association in order that sufficient financial provision

might be obtained for the carrying on of the proposed Federal Council.

Presentations.

Sir James Barrett presented to the Council a *Punch* cartoon of Sir William Dalby, who in his time was an eminent London oculist; he also gave a manuscript of Dr. Robertson, Senior Physician of the Melbourne Hospital, 1881, conveying instructions to Sir James Barrett, who was his resident physician.

Dr. Mollison presented a clock to the Council for use in the Council Chamber.

Mr. B. T. Zwar presented to the Branch an enlarged photograph of Dr. John Williams, some time Senior Physician of the Melbourne Hospital, and President of the Medical Society of Victoria, 1887.

As a result of the work of the Embley Memorial Committee, a brass tablet was placed on the wall of the foyer of the hall to the memory of Edward Henry Embley, M.D., as a tribute of appreciation of his courage and skill as an investigator of the causation of death during the administration of chloroform and similar agents.

A brass tablet was also placed in the Wilson Hall at the University of Melbourne; a triennial lectureship was established, and Professor Osborne has been asked to give the first Embley Memorial Lecture on a date to be fixed. A gold medal will also be awarded for an essay on anæsthetics by a final year student at the Melbourne Medical School.

Proposed Diploma Courses at the University.

On the representations of the respective Sections, the Council approved of the establishment of Diplomas in Oto-rhino-laryngology, Ophthalmology and in Gynæcology. At the request of the University three members of each of the Sections of this Association were nominated to a Committee to draft regulations for the courses and examinations.

Early Medical History.

The original Committee, with the addition of Dr. W. R. Boyd and Dr. Black, was reappointed, and Drs. G. T. Howard and Dr. Felix Meyer are now collaborating in the compiling of the early medical history of Victoria up to 1883. The editors would welcome any information with regard to the pioneers of the medical profession.

Cinematograph.

A cinematograph machine has been purchased and a lantern with microscopic attachment is on order. An epidiascope is also available for scientific meetings of the Branch and the Sections.

Social and Personal.

Congratulations were sent to Sir Stanley Argyle on the distinction conferred upon him by His Majesty the King.

Dr. T. P. Dunhill was congratulated on his appointment as Surgeon in Ordinary to His Majesty the King.

Congratulations were sent to the Medical Students' Society on the occasion of its attaining its Jubilee and wishes were expressed for the continued success of the Society.

Dr. Mervyn Archdall was congratulated on his appointment as Editor of THE MEDICAL JOURNAL OF AUSTRALIA.

Congratulations were offered by the Branch to Dr. Harold R. Dew upon his appointment as Bosch Professor of Surgery in the University of Sydney, and he was entertained at dinner by the Council on March 28, to which also were invited members of the Federal Committee which was holding its meeting on that date. Professor Harold Dew was later congratulated on his appointment as Hunterian Professor of Surgery.

The greetings of the Branch were forwarded to the Canadian Medical Association through Dr. Krupp, who was passing through Melbourne.

The medical men and women who graduated in August last were entertained at afternoon tea at the Hotel Windsor immediately after their registration on September 17. Twenty-seven graduates and seventeen members of the Council were present. Mr. Victor Hurley, in the absence of the President, welcomed them into the profession, and Dr. H. C. Colville addressed them on the subject of their professional conduct both towards their patients and their colleagues.

Professor Evarts Graham, of Washington University, St. Louis, Missouri, United States of America, who delivered lectures arranged by the Permanent Post-Graduate Committee, was entertained at supper by the Council on Friday, July 25.

Dr. J. W. Dunbar Hooper, after very many years of most valuable service as Secretary of the Melbourne Central Subdivision, and its representative on the Council, has, to the regret of all, decided to retire from these positions, and his place has been taken by Dr. Bell.

After eight years of faithful service as Representative of the Northern Subdivision, Dr. J. H. Pestell has decided to retire from the Council. The Council desires to place on record its appreciation of his services, and would assure him that he is retiring with the heartiest goodwill of his fellow members.

The Council accepted with regret the resignation of Miss Lay, for twelve years the Assistant Secretary of the Branch, and congratulated her upon her approaching marriage.

Dr. A. L. Kenny was asked to deliver the second Syme Memorial Lecture towards the end of 1931, and he has acceded to the Council's request.

Death of Dr. H. W. Armit.

A letter of sympathy was sent to the relatives of the late Dr. H. W. Armit, Editor of THE MEDICAL JOURNAL OF AUSTRALIA since its inception in July, 1914. The Council expressed its regret at the passing of a great editor, and felt a distinct sense of loss on account of his death.

General Practitioners' Section.

The activities of the General Practitioners' Section were considered by the Council and the following resolutions were passed.

1. The present medico-political activities of the General Practitioners' Section had their origin in the reaction which followed the circular on dichotomy issued by the Council in December, 1929, and in the publicity which followed the Annual Meeting of the College of Surgeons in March, 1930.

2. (*a*) The Section was formed according to the rules as the "Lodge Medical Practitioners' Section."

(*b*) It was duly allowed to become known as the "General Practitioners' Section."

3. As a result of some of the medico-political and other activities of the General Practitioners' Section a position has been reached when the Council has been embarrassed in its responsibility of administering the affairs of the Branch on behalf of all its members; the Council thinks this may have been due to an error of judgement and without a full recognition of the position that might have ensued.

4. The Victorian Branch of the British Medical Association is under an obligation to support the publication of THE MEDICAL JOURNAL OF AUSTRALIA for the following reasons:

(*a*) The Branch, in common with the New South Wales Branch, ceased to publish its own journal on the foundation of THE MEDICAL JOURNAL OF AUSTRALIA.

(*b*) Three members of the Branch are nominated members of the Australasian Medical Publishing Company, Limited, and the Victorian Director is an *ex officio* member of the Council.

(*c*) The Branch pays a *pro rata* annual subscription to the Australasian Medical Publishing Company, Limited, for its members.

(*d*) The Council permits the Victorian representative of the Journal to attend its meetings and to supply the Editor with a confidential *précis* of its proceedings.

(*e*) The proceedings of the Branch are published in the Journal.

5. The publication of a journal calling itself the official journal of a section of the Branch constitutes a breach of the obligations referred to in that it may interfere with the support of THE MEDICAL JOURNAL OF AUSTRALIA.

6. In the publication of the journal (the *General Practitioner*) as the official journal of the General Practitioners' Section of the Branch, and the matter contained therein, the Section has exceeded the objects of the Section that were approved by the Council.

The Executive of the General Practitioners' Section was informed of the above decisions of the Council, and it was requested that the future activities of the Section be confined to objects submitted to and approved by the Council.

The representatives of the General Practitioners' Section were asked to suggest to their Section that it should submit for approval any further objects desired.

The General Practitioners' Section drew the attention of the Council to the publicity in the press given to the Annual Meeting of the College of Surgeons of Australasia. Consideration of the matter was referred to the Ethics Subcommittee, and the following resolutions of the Ethics Subcommittee were ultimately adopted by the Council:

1. The publication in the press of biographical notices and photographs of members of the Association, including the Chairman of the Federal Committee, occurred during an official Congress of the College of Surgeons of Australasia.
2. The biographical notice of the Chairman of the Federal Committee bore internal evidence that the details were readily obtainable independently of the Chairman.
3. A photograph of the Chairman of the Federal Committee and a group photograph of members were published, the latter without attached names to indicate their identity.

As to the reasons for the resolution that no action be taken, the Subcommittee is of the opinion that official gatherings are occasions during which some publicity is unavoidable, that the portrait of the Chairman was not a posed photograph, and that the publication of individual and group photographs is customary at other official gatherings, such as those of the Australasian Medical Congress (British Medical Association).

Indent Agency.

Owing to the unsatisfactory Government financial arrangements and the incidence of the sales tax, the Council decided to give up the Indent Agency, which was run on a bare margin of profit, and offer to members to act as their forwarding agent. Under this arrangement the members will receive their journals at the cost previously charged to the agency, but they will pay their accounts as submitted to the Secretary of the Branch, with the addition of poundage and postage. In this way the office will keep no books of finance, and thus will not be hampered by the Government restrictions at present existing.

Reports of Subdivisions.

Ballarat Subdivision.

President, Dr. Ian McNeil; Vice-President, Dr. W. Spring; Honorary Treasurer, Dr. H. Pearce; Secretary, Dr. G. R. Davidson; Council, Dr. E. A. Guymer, Dr. A. C. H. Salter, Dr. J. C. Best, and Dr. J. Barnaby.

The annual meeting of the Subdivision was held on February 29, 1930, when the above were appointed.

Two quarterly meetings of the Subdivision have been held since then. In May Dr. Embelton addressed the Subdivision on hospital contributory schemes, and in August Mr. Gordon Shaw delivered a paper on "Diseases of the Gall Bladder."

The Ballarat Hospital Clinical Society holds monthly meetings. Several papers have been read and cases of interest shown and discussed.

These meetings, which are very successful, are not limited to the hospital staff; all members of the subdivision are welcome to attend.

RONALD DAVIDSON,
Honorary Secretary.

Bendigo Subdivision.

This subdivision has had a fairly successful year. During the year Dr. Ewen Downie gave a lecture on "Present Day Attitude Towards Diabetes." A very successful Branch meeting was held during the year, about a hundred members being present, including visitors from Melbourne, Ballarat, Geelong and surrounding districts. Several interesting papers were read and clinical cases were shown at the Bendigo Hospital. The office-bearers for the year 1930 are: President, A. J. Bothamley; Vice-President, D. W. Neville; Secretary and Treasurer, M. Jacobs. As our annual meeting is not held until the New Year, these gentlemen still hold office.

MORRIS JACOBS,
Honorary Secretary.

Geelong Subdivision.

This division felt very pleased that one of its members had the honour of being made President of the Victorian Branch of the British Medical Association.

On March 8 a meeting of the above Subdivision was held at Geelong, and was very successful and enjoyable.

Considerable controversy has occurred over the working of the industrial scheme of contributions to the local public hospital funds, but adjustments have been made which are giving reasonable satisfaction to all concerned.

J. E. PIPER,
Honorary Secretary.

Goulburn Valley Subdivision.

Five meeting of the Subdivision were held at Mooroopna during the past year. These were uniformly well attended by members of the Subdivision. The meetings held were:

1. Annual meeting at which the following office-bearers were elected: President, Dr. F. W. Grutzner; Vice-President, Dr. R. O Mills; Secretary, Dr. Annie L. Bennett; Committee, President and Secretary *ex officio*, Dr. W. L. Armstrong, Dr. J. W. Florance; Representative on Council, Dr. J. W. Florance ; Representative on Advisory Board of Mooroopna Hospital, Dr. J. W. Florance.
2. A clinical meeting was held at the Mooroopna Hospital, at which cases were shown by members of the honorary medical staff.
3. A post graduate meeting was held, at which Mr. W. A. Hailes lectured on "The Diagnosis of Acute Abdominal Conditions," and Dr. Ivan Maxwell on "Asthma."
4. Through the courtesy of the Baker Institute of the Alfred Hospital, Prahran, Dr. Ewen Downie delivered a lecture on "Diabetes."
5. One ordinary meeting was held, at which the memoranda on meetings of delegates and on hospital policy were discussed.

Delegates from the Subdivision attended the Conference on Hospital Policy and National Insurance, held in Melbourne in October, 1929, and April, 1930.

ANNIE L. BENNETT,
Honorary Secretary.

Gippsland Subdivision.

Office-bearers for the year 1930 appointed at subdivisional meeting held at Yallourn on Saturday, August 31, 1929: President, Dr. H. Mitchell (Morwell); Representative on Council, Dr. G. J. Ley (Warragul); Secretary and Treasurer, Dr. C. M. Ley (Warragul).

There were two Subdivisional meetings.

1. At Korumburra, Saturday, June 7, 1930. Only seven members of the Subdivision attended, and two from Melbourne, Dr. R. M. Downes and Dr. Hughes-Jones. A clinical meeting was held in the afternoon at the Korumburra Hospital. After dinner, Dr. R. M. Downes read a paper entitled "The Surgery of Bone."

The meeting decided to support the request by the Council for all members to subscribe to the fund required for future investigation of national insurance and other policies by issuing promissory notes for amount needed from each member of the Branch.

2. A meeting was held at Warragul on Saturday, October 20. Thirteen members of the Subdivision attended, and three from Melbourne, Dr. Sutherland, Dr. Green and Professor Marshall Allan.

In the afternoon a clinical meeting was held at the West Gippsland Hospital.

At the meeting after dinner Dr. G. J. Ley was elected President of the Branch for the coming year, and Dr. C. M. Ley reelected Secretary and Treasurer.

The President, in his address, called for more support from the members of the Subdivision in the coming year, as there were such important matters as national insurance, hospital policy and the lodge agreement to be faced.

Dr. B. Milne Sutherland read a paper on "Abortion and Post Partum Hæmorrhage."

It was decided to hold the next annual meeting at Yallourn in January, 1931.

This meeting was most enthusiastic, and in the coming year we hope to have subdivisional meetings at three-monthly intervals.

CONRAD M. LEY,
Honorary Secretary.

South-Western (Country) Subdivision.

Five meetings were held. The first, at Warrnambool, was devoted to business in the afternoon, and an address by Dr. McPhee, the President of the Branch, on the proposed meeting of delegates. In the evening a number of good cases were shown. Later in the year a meeting was held at Camperdown, where consideration was given to reports by the delegates attending the first conference. At this meeting an address on diabetes, with special reference to the present position with regard to mortality, was delivered by Dr. Ewen Downie, under the auspices of the Public Health Department. The next meeting was at Hamilton and consisted of a clinical afternoon, with a demonstration on surgical diathermy by Mr. Trumble (Permanent Postgraduate Committee) in the evening. In May of this year a meeting was held at Warrnambool—also a clinical meeting—at which a paper on the present position of radium application was read by Dr. Littlewood, of Warrnambool, who had shortly before returned from London. Another lecture under the auspices of the Permanent Postgraduate Committee was given at Hamilton, on common ocular disorders, by Dr. Ringland Anderson. At this meeting also three cinematograph films, kindly lent by the Alfred Hospital, were shown.

The Subdivision sent delegates to both conferences held in Melbourne during the year.

Attendances at meetings throughout the year have been good.

With reference to Subdivisional Representative and Local Committee—at the last meeting the following were elected: Subdivisional Representative, Dr. S. Fitzpatrick, Hamilton; Chairman, Dr. H. I. Holmes, Warrnambool; Vice-Chairmen, Dr. S. C. Desailly, Camperdown, Dr. T. G. Oliphant, Hamilton; Honorary Secretary, Dr. G. E. Cole, Geelong; Honorary Treasurer, Dr. Oliphant, Hamilton; Members of Committee, Dr. J. F. Patrick, Warrnambool, Dr. J. Morlet, Camperdown.

G. E. COLE,
Honorary Secretary.

Melbourne Central Subdivision.

During the year meetings have been held to consider the suggestions regarding the delegation of powers of Branch meetings to a "Representative Body," and general approval was given to the proposals.

Twelve delegates were elected to represent the Subdivision at the general meeting of representatives held in April, and later those twelve undertook to canvass members of the Subdivision for subscriptions to the proposed insurance fund. That canvass has been caried out, and the great majority of members have agreed to join in the campaign by subscription of £6 per member to join in the campaign.

The Subdivision has nominated Mr. Victor Hurley and Dr. R. H. Fetherston to the Council for selection of a representative on the Insurance Committee.

Representatives of the Subdivision for the coming year are Mr. W. G. D. Upjohn and Dr. J. R. Bell, nominated by the Subdivision, and Dr. J. F. Wilkinson, nominated by the Council.

J. W. DUNBAR HOOPER,
Honorary Secretary.

Eastern Suburbs Subdivision.

Four meetings of the Subdivision were held and there was an average attendance of 30 members. The office-bearers for the year were: President, Dr. Colville; Secretary, Dr. Hallam; Council Representative, Dr. Walter Summons; and these officers along with Dr. Laurie and Dr. True, formed the Excutive Committee.

Matters of medico-political interest were discussed at the meetings, and at each also some clinical paper or demonstration was given. Those who contributed were: Dr. Roberta Donaldson, Dr. R. L. Forsyth, Dr. Ewen Downie, Dr. J. Newman Morris, Dr. L. S. Latham and Professor Marshall Allan.

The meetings were held at the homes of members of the Subdivision, who at the close of business entertained those present.

NEWPORT WHITE,
Honorary Secretary.

South-Eastern (Suburban) Subdivision.

The annual general meeting was held in the Caulfield Town Hall on April 23. A large meeting discussed the questions of hospital policy.

A further well-attended meeting was held on August 15, when Dr. Embelton gave an address on the subject of national insurance.

DOUGLAS C. PIGDON,
Honorary Secretary.

Western Suburbs Subdivision.

Two meetings were held during the year, and at both there was a fair attendance of members.

A lecture by Dr. Ewen Downie on "The Present Position of Diabetes Mellitus" was well attended.

M. J. COSTELLOE,
Honorary Secretary.

Northern Suburbs Subdivision.

During the past year four meetings were held, all of which were well attended.

A meeting was held at Dr. Downing's, Ivanhoe, many members coming from a distance. A keen discussion took place on hospital policy and insurance.

We are much indebted to Dr. Downing, also to Dr. Rosenberg for his attendance and asistance. Two meetings were held at Coburg, one at Dr. Spring's, one at Dr. Matthew's. The best thanks are due to those gentlemen for their kindness. A meeting was also held at Dr. Brownell's, Northcote, who has always shown an active interest in the welfare of the members. We also thank him.

J. H. PESTELL,
Honorary Secretary.

Reports of Sections.

In view of discussions which have taken place during the year concerning the relationship between the Council and Sections of the Branch, the following rules of the Branch governing the formation and conduct of Sections are reprinted for the information of members:

Sections of the British Medical Association, Victorian Branch, for the study of special branches of medical knowledge, may be formed under certain conditions as follows:

1. Any number of members of the Branch desiring to form any such Section shall apply in writing to the Council of the Branch for recognition as a Section, specifying explicitly the scope of the work of the proposed Section. No Section shall be formed except in pursuance of resolution to that effect by the Council of the Branch, and the Council may at any time, by resolution, terminate the existence of any Section.

2. All members of any such Section must be members or complimentary members of the Branch, and membership of any Section shall be open to all members of the Branch.

3. The members of each Section shall appoint a Chairman, an Honorary Secretary, who may or may not also act as Treasurer of the Section, and such other office-bearers as they shall from time to time

determine. All such appointments shall be reported to the Council of the Branch, and shall be subject to the approval of the Council.

4. Each member of a Section shall pay to the Honorary Treasurer of the Section an annual subscription consisting of such sum as the members shall from time to time determine, and each Section shall pay to the Honorary Treasurer of the Medical Society of Victoria such sum as the Committee of the Society shall from time to time determine for each meeting of the Section held in the Hall of the Medical Society, except only where such meeting shall take the place of an Ordinary meeting of the Branch.

5. Ordinary meetings of a Section shall be held at such intervals and at such times as the members of the Section may from time to time determine, subject to the approval of the Council of the Branch, provided that at least one such meeting in each year shall be open to all members of the Branch; such General Meeting may take the form of a clinical afternoon at some special hospital, a special demonstration, or, with the special consent of the Council, may take the place of an Ordinary Meeting of the Branch.

6. The members of the Committee of any Section shall be responsible for any expenditure, and for any liabilities incurred by such Section.

7. Before the last Wednesday in October of each year, the Honorary Secretary of each Section shall forward to the Honorary Secretary of the Branch a report of the work of such Section for the year, and a statement showing its financial position, together with a list of its members.

General Practitioners' Section.

Five meetings were held during the year, all of them at the Medical Society Hall.

Dr. Sidney Crawcour gave a cinematograph exhibition of scientific and topical subjects.

Dr. John Kelly gave a lecture on "Diseases of the Skin."

Dr. Reg. Webster gave a lecture on "Pathological Examination in Your Surgery."

On April 9, 1930, the Annual Meeting of the Section was held, 160 members being present.

Dr. D. Rosenberg was reelected Chairman, and Dr. G. H. Guthridge Secretary and Treasurer.

The following members of the Committee were elected: Dr. Ward, Dr. True, Dr. Grover and Dr. McAree.

At this meeting certain matters appearing in the press during the Congress of the College of Surgeons were considered, and the Section affirmed its loyalty to the British Medical Association, and instructed the Secretary to write to the College of Surgeons expressing its indignation at the articles appearing in the press.

An Advisory Committee was formed to keep general practitioners aware of the trend of events affecting them.

The first publication of the Section's official journal came forth immediately after this meeting, and now has a very large list of subscribers.

The final meeting of the year was held on October 14, and there was again a very large number of members present.

The Section was informed, at this meeting, of the great difficulties that had been met with by the Executive, and of the action of the Council in inquiring into the Section's activities, and even the possibility of the Section being suppressed.

It was decided at the next election to attempt to get a greater number of men on the Council who would represent the interests of general practitioners.

The Section also defined its attitude towards the College of Surgeons, as follows:

That the College of Surgeons should:

1. Recognize the British Medical Association as the sole intermediary between the profession and the public.

2. Delete from its exordium and constitution the principle of education of the public.

3. Prohibit representatives of the lay press from attending its meetings or being supplied with reports thereof, at the same time taking such steps as are necessary to prevent indirect advertising of the College or its members.

4. Allow all meetings and demonstrations of the College to be open to all members of the British Medical Association.

5. Recognize the supreme authority of the British Medical Association over its members in all matters of public policy and those affecting the whole of the profession, particularly in regard to such subjects as "Hospital Policy," "The Division and Scale of Fees," "Nationalization" and "National Insurance."

G. H. GUTHRIDGE,
Honorary Secretary.

Section of Anæsthesia.

Chairman, Dr. R. W. Hornabrook; Honorary Secretary and Treasurer, Dr. Eric Gandevia.

Quarterly meetings were held in January, April, July and October, the last named being open to all members of the British Medical Association.

The following papers were read during the year: "The Newer Anæsthetics," by Dr. J. Newman Morris: "Intra-Tracheal Anæsthesia," by Dr. B. R. Hallows; "Gas and Oxygen Anæsthesia," by Dr. Lillies; "Somniferin as a Preliminary to Anæsthesia," by Dr. D. G. Renton; "The Choice of Anæsthesia for Operations," by Dr. Leo. Doyle.

ERIC GANDEVIA,
Honorary Secretary.

Ophthalmological Section.

During the year four meetings of the Section have been held at the Victorian Eye and Ear Hospital, the average number of members present being twelve.

The meetings have been chiefly of a clinical nature, and some very interesting cases and problems have been discussed. On September 2 Dr. Reg. S. Ellery kindly contributed a very interesting and instructive paper on "Ophthalmological Aspects of Psychiatry."

The Section decided during the year to recommend the establishment of a higher degree in ophthalmology.

W. J. L. DUNCAN,
Honorary Secretary.

Radiological Section.

The Section has had a successful year; six meetings were held up to the month of October.

The office-bearers were: President, Dr. K. S. Cross; Honorary Treasurer, Dr. H. Flecker; Honorary Secretary, Dr. Colin Macdonald.

There are sixteen financial members.

COLIN MACDONALD,
Honorary Secretary.

Ear, Nose and Throat Section.

Four meetings were held. Dr. Kenneth Adamson gave a lecture on "Orthodonty and its Relation to the Ear, Nose and Throat."

ERIC GUTTERIDGE,
Honorary Secretary.

Section of Neurology and Psychiatry.

During the year there have been two meetings. Dr. S. V. Sewell was elected Chairman, and presided at each meeting. Dr. M. A. Schalit on February 24 read a paper on "Mental Hygiene," giving his experiences abroad. After discussion it was unanimously decided to form a Mental Hygiene Council in Victoria, and a committee was appointed.

At a subsequent meeting, including educationalists and social workers as well as interested medical practitioners, a Mental Hygiene Council was formally founded. This Council has been organizing subcommittees to carry out the programme of the work of the Council.

On March 31 Dr. J. F. Williams, Dr. R. S. Ellery and Dr. L. J. Birch read papers on "Epilepsy." An interesting discussion followed.

On September 13 a visit was made to the Talbot Epileptic Colony.

F. H. MAUDSLEY,
Honorary Secretary.

Gynæcological and Obstetrical Section.

President, Professor R. Marshall Allan.

A meeting was held on May 14. A cinematograph of—(*a*) The management of normal breech presentation was shown by Professor Marshall Allan. (*b*) A case of pregnancy and ventral hernia was shown by Dr. A. Sherwin.

The clinical history of the following cases was demonstrated: (i) Vaginal enterocele, and (ii) Inversion of the uterus, by Dr. E. A. Spowers; (iii) A rare case of chorio-carcinoma of the uterus, by Dr. H. Jacobs; (iv) Inversion of the uterus and subtotal hysterectomy four years later; Epithelioma of the cervix, by Dr. E. White.

The retiring President, Dr. B. M. Sutherland, then gave an address.

A meeting was held on October 30. British cinema films were shown by Dr. E. White and Dr. S. Crawcour, illustrating—(*a*) Radical excision of the Breast; (*b*) The radium treatment of carcinoma of the breast; (*c*) Cæsarean section.

The clinical history of a series of interesting cases was given by Dr. G. B. Bearham, Dr. R. W. Chambers, Dr. W. D. Saltau, and Dr. E. True.

EDWARD R. WHITE,
Honorary Secretary.

The Melbourne Permanent Committee for Post-Graduate Work.

The following is an outline of the committee's activities during the past year:

In April, May and June a series of ten lecture-demonstrations was given by Professor P. MacCallum, on "Recent Advances in Applied Pathology." Entries for this course numbered 103, which is evidence of the keen interest taken in the subject.

The overseas lecturer for 1930 was Professor Evarts Graham, Professor of Surgery, St Louis, United States of America, who in July delivered a series of six lectures dealing with the surgery of the thorax and biliary tract. The lectures were highly instructive, and were delivered in a most stimulating and interesting style. with the result that they were enthusiastically received by members of the course, who numbered 137.

Concurrently with Professor Graham's lectures was held the Annual Refresher Course, for which there were twenty-nine entries. Those graduates who entered worked at high pressure, and later expressed themselves very appreciatively in regard to the course.

Preparations are at present in train for—(i) An obstetrics course of two weeks' duration at the Women's Hospital during November; and (ii) a course of lectures on anatomy and physiology for entrants for the Primary Fellowship Examination of the Royal College of Surgeons, to be held in Melbourne in 1931.

During the year arrangements were made through the Committee by several Subdivisions for lecturers to visit country centres.

The representatives of the Council on the Committee are Dr. A. V. M. Anderson and Dr. Dunbar Hooper. In addition Mr. Allan Hailes, as convener of the Science Committee, is *ex officio* a member.

The Committee has suffered a great loss during the past year in the resignation of Mr. Harold Dew, who has been appointed Professor of Surgery at the University of Sydney.

Professor Dew succeeded Dr. S. W. Patterson on the Committee in 1923. He was appointed joint honorary secretary with Dr. Dunbar Hooper later in the year, and has acted in that capacity till his resignation this year. The Committee is under a deep debt to Professor Dew for the energy, enthusiasm and exceptional ability displayed by him in furthering its interests and attaining its objects.

W. W. S. JOHNSTON,
Honorary Secretary.

British Medical Agency of Victoria.

The Agency has now been established for one year under the new conditions. The Board of Directors consists of three members, two of whom represent the Branch; they are glad to be able to report that the year has been a successful one.

The Council appeals to members of the Association to give the Agency their support. As its funds accumulate, it is the hope of the Directors to be able to assist young members, with the purchase of practices, if necessary.

C. H. MOLLISON,
Chairman of Directors.

British Medical Insurance Company of Victoria, Limited.

The Company has now been operating for nearly five years, and has received the support of the majority of the members of the Branch. It is hoped that the remainder will ultimately insure with their Company.

The Head Office of the Company is at 393-395 Little Flinders Street, Melbourne, and it transacts all classes of insurance business other than life.

The motor car "Comprehensive" Policy contains wider benefits than are to be found in the policies of any other company (including Lloyds), and bearing in mind the excellent "moral hazard" of the profession, the premium rate is considerably lower.

In the other departments also—particularly the Fire Department—business is received at a reduction of 20% upon the ruling rates with other companies.

Although the "B.M.I." Company is of recent establishment, policy holders are amply secured by reinsurance, which has been arranged with wealthy companies.

It should be borne in mind that the profits made by the Company will ultimately benefit the Branch, so there is, therefore, every inducement for members to support the "B.M.I." Company.

C. H. MOLLISON,
Chairman of Directors.

In conclusion, the Council desires to express its appreciation of the work done during the past year by the Subdivisions and Sections of the Branch.

It also expresses its appreciation of the loyal and efficient services of the staff throughout a busy year.

On behalf of the Council,
R. G. MCPHEE, President.
J. P. MAJOR, Honorary Secretary.

INDUCTION OF PRESIDENT.

DR. R. G. MCPHEE introduced DR. VICTOR HURLEY as the President of the Branch for 1931. He referred in terms of appreciation to the services of Dr. Hurley to the Branch and wished him a successful term of office.

Dr. Hurley returned thanks for his election to the important office of President.

PRESIDENT'S ADDRESS.

DR. R. G. MCPHEE then delivered his address (see page 33).

VOTES OF THANKS.

A vote of thanks to Dr. McPhee for the services he had rendered to the Branch during his year of office was moved by DR. H. F. H. ELVINS, seconded by DR. L. S. LATHAM and carried by acclamation.

It was resolved on the motion of DR. J. NEWMAN MORRIS, seconded by DR. B. T. ZWAR:

> That this annual meeting of the Victorian Branch of the British Medical Association records its deep appreciation of the long and faithful services as Honorary Secretary of the Branch of Dr. Frank L. Davies.

A vote of thanks was carried on the motion of DR. G. WEIGALL, seconded by DR. H. C. COLVILLE, to those members who had worked on the Council for the preceding year, but would not take part in the Council's work of 1931, namely, Sir Stanley Argyle, Dr. J. W. Dunbar Hooper and Dr. J. H. Pestell.

B.M.A. HOUSE, LONDON.

Thirty-five lantern slides of the B.M.A. House, Tavistock Square, London, were shown. These slides had been forwarded to the Federal Committee for the use of any of the Branches in Australia.